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A STUDY TO DEVELOP POLICY RECOMMENDATIONS DESIGNED TO UPGRADE INTERCITY BUS SERVICE IN MASSACHUSETTS

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PREPARED FOR
EXECUTIVE OFFICE OF
TRANSPORTATION AND CONSTRUCTION

BY
TRAMCO, INC.
CAMBRIDGE, MASSACHUSETTS

APRIL 1980

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April 17, 1980

The Commonwealth of Massachusetts
Executive Office of Transportation
and Construction
One Ashburton Place - 16th Floor
Boston, Massachusetts 02108

Attn: Mr. Barry Locke, Secretary

Gentlemen:

We are pleased to forward herewith our final report in the Massachusetts Intercity Bus Study incorporating the findings and recommendations resulting from an intensive four month effort aimed at the development of policy recommendations to upgrade intercity bus service in Massachusetts.

We have appreciated the cooperation received both from EOTC staff and from the 28 intercity bus lines which supplied data for use in this study. Special thanks should be extended to Mr. Basil Kinson of Kinson Bus Lines and Mr. Peter Picknelly of Peter Pan Bus Lines who agreed to serve as representative small and large Massachusetts-based carriers and contributed generously of their time and data.

The important step is yet to be taken: that of implementing the recommendations contained in this report to provide Massachusetts with an improved level of intercity bus service. We would be pleased to assist the EOTC in this effort.

Sincerely,

TRAMCO, INC.

Wm. E. Griswold

William E. Griswold
Vice President

WEG/aml
Enclosures

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FINDINGS AND RECOMMENDATIONS

The 28 intercity bus lines operating in Massachusetts provide scheduled services which are accessible to about 80 percent of Massachusetts residents. An estimated 30,000 passenger trips per day are made on intercity bus lines in Massachusetts, making the number of daily intercity bus passengers about equal to the numbers of passengers handled on the MBTA commuter rail network.

With the exception of the two nationwide bus systems, the typical intercity bus line serving Massachusetts is a small, family-owned business with a fleet of ten intercity buses and annual gross revenues of about $1,000,000.

Of all the surface passenger transportation modes, intercity bus service is perhaps the best qualified, because of its profit potential, to be operated by private enterprise. Based on the problems inherent in the public operation of transit authorities and commuter rail service, there is no evidence to suggest that the state could operate intercity bus service either more effectively or less expensively than is now being done by the private carriers. The Commonwealth should not become directly involved in the operation of intercity bus services, except as a last resort.

In 1979, interstate bus fares granted in Massachusetts by the Interstate Commerce Commission averaged 11 cents per passenger mile. Intrastate fares granted by the Department of Public Utilities, in contrast, averaged six cents per passenger mile. In addition, intrastate commuters are able to purchase ten-ride ticket books at discounts averaging 20 percent, making the revenue yield on such tickets five cents per mile or less. This two-to-one dichotomy between interstate and intrastate bus fares

has persisted for a decade. As a result, in Massachusetts, interstate bus passengers subsidize intrastate bus passengers, and users of full fare tickets subsidize users of commuter tickets. While it is generally agreed that charter buses earn an adequate rate of return, buses utilized in intrastate scheduled services at current fare levels do not. Combining revenues from all services, the rate of return on investment which the D.P.U. permits the carriers to earn is inadequate to permit the purchase of new buses at the rate needed to replace obsolescent buses.

The response of the intercity bus lines to the low fare policy consistently held out in the past by the Department of Public Utilities has been fairly predictable. The large interstate carriers, which tend to have good data on what their costs are, have moved gradually but steadily out of intrastate markets into interstate markets.[1/] Replacing the interstate carriers in intrastate markets have been smaller, well-financed intrastate carriers. These carriers invariably make use of much older buses than those utilized by the interstate carriers and typically operate fewer trips than were offered by the carriers they have replaced.

The intrastate carriers are caught in a cost-price squeeze: they are unable to work their way out of their intrastate markets, and the regulatory mechanism does not allow them to raise their fares as fast as costs are driven up by inflation. As a result, the intrastate carriers are, to an increasing degree, unable to replace their buses as they become obsolete. The impact of this problem is best illustrated by average-age-of-fleet statistics: the average-age-of-fleet of the interstate carriers is five years.

1/Interstate carriers and the markets from which they have withdrawn include: Greyhound from Newburyport-Boston; Michaud from Haverhill-Boston; Englander from Fitchburg-Boston; and Bonanza from Taunton-Boston.

the average-age-of-fleet of the intrastate carriers is nine years. Thus, the long term effect of the D.P.U.'s low fare policy on intrastate bus service has been to force intrastate carriers into offering less frequent schedules and relying upon older and older buses. This gradual decline has been punctuated, at fairly regular intervals, by the bankruptcy of intrastate carriers.[1/]

Two reasons why the D.P.U. and the I.C.C., in examining the operations of a given intercity bus line, should arrive at such different conclusions regarding appropriate fare levels are:

- the D.P.U. has based its intrastate fares on unrealistically high assumptions regarding the load factor which scheduled carriers should be able to attain, and
- the D.P.U. has based its intrastate fares on unrealistically low assumptions regarding the rate of return on investment which the carriers need to earn in order to finance the purchase of new buses.

The D.P.U.'s approach reflects their concern to protect commuter bus passengers from the impact of higher fares, but in so doing, they have compromised the carriers' ability to continue operating commuter services, as evidenced by the withdrawal of major carriers from key routes. By way of contrast, an on-board survey of 85 percent of the passengers handled by Kinson Bus Lines showed commuter passengers to be generally affluent, with an average family income of $27,500. The passengers interviewed were far more concerned about frequency and quality of service than fare levels, within reasonable limits.

1/Almeida, Wellesley Fells, and Ritchie have already gone out of business; a similar fate appears imminent for two more carriers. In addition, the financial condition of Plymouth & Brockton and Gray Line has been made perilous by current high interest rates.

The regulatory problems which the carriers face are heightened by the unrealistically complex procedures with which the carriers must comply in the processing of an application for a fare increase. Only the largest carriers are realistically able to meet the legal and accounting requirements of the present D.P.U. fare increase process. Adding to the financial burden faced by the intrastate carriers is the customary ten month delay which any application for a fare increase entails. Under the present system of detailed case-by-case analysis of carrier applications for fare increases there has been a chronic staff shortage at the D.P.U. which requires that first priority be given to cases involving the much larger metered utilities. The recommended consolidation of the present multiple application process into a standardized foremat should reduce the D.P.U. workload in this area to more manageable levels.

If the regulatory climate in the past decade has brought the bus industry into the awkward position described above, the present D.P.U. seems willing to discuss with the carriers their current difficulties. As an example of one step forward, the D.P.U. has granted the carriers an automatic fare surcharge based on the fuel cost increases which are published at regular intervals by the I.C.C.

The setting of clear simple standards applicable to intercity bus lines statewide offers a way out of the present dilemma. The consolidation of the applications of all 28 carriers into a single annual intercity bus fare proceeding would provide a worthwhile simplification. Essential to this process would be recognition, at the state level, that if intercity bus lines are expected to operate as private enterprises, they must be allowed to charge fares which will enable them to meet not only operating costs but also the cost of financing new bus purchases. To do this, the carrier must be allowed to earn a rate of return on investment which is at least equal to their cost of capital, both debt and equity. This cost is currently estimated at 20 percent.

In 1979, the average revenue yield of a typical intrastate carrier was 5.1 cents per passenger mile. In order to earn a rate of return on investment in 1980 equal to their cost of capital, intrastate carriers should be allowed to charge fares which will yield 7.1 cents per passenger mile. This would require a fare increase of about 40 percent, but the resulting fares would still be about 40 percent less than the interstate fares charged in 1979 in markets of equal length.

Standardization of intercity bus fares statewide would not only permit a major simplification of the rate setting process but also would make it possible to eliminate some of the major inequities in the present rate structure. The fare basis which this study recommends for round trip tickets in 1980 is $1.00 per ride plus six cents per passenger mile. The recommended one-way fare basis is 12 cents per passenger mile; this would place one-way intrastate and interstate fares on the same basis. The recommended discount for commuter tickets is 16.7 percent or 12 tickets for the price of ten. To offset the reduction in the discount offered to commuter, it is recommended that the 30 day limit which now applies to commuter tickets be waived.[1/] The above fare structure has an estimated average yield of 7.1 cents per passenger mile, which meets the standard established for a rate of return on investment required for the carriers to be able to replace obsolescent buses.

Since a one-time fare increase of 40 percent could be expected to meet with considerable passenger resistance, it is recommended that the proposed new fare levels be achieved gradually, either in four quarterly increases of ten percent, or five bi-monthly increases of eight percent. The first such increment, either of eight percent or ten percent, should be awarded as soon as practical in an expedited rulemaking, since an increase of at least this amount is justified by the extra-

1/The recommended standard intercity bus fares for journeys of various lengths appear on page 207

ordinary inflationary increases in carrier operating costs recorded in the first quarter of 1980. Once intrastate bus fares have been equalized on a standardized basis, the need for future fare increases can be monitored quarterly by computing the carriers' average operating cost per bus mile and as well their average rate of return on investment.

To qualify for a standard fare, carriers would be required to meet basic operating and financial disclosure standards. For example, the carrier's average age of fleet could not exceed 7.5 years, buses would be lavatory equipped for routes of more than one hour in length, heating and air conditioning would be in working order, and sufficient extra sections would be provided to ensure that there will be no regular standees. In addition, certain standards of financial conduct would be spelled out, such as the full disclosure of affiliate relationships, and the fully allocated costing of bus leasing when effected between companies which are operated as a single management entity.

Specific steps which the State could take to assist in the marketing of intercity bus services include:

- Publication of a combined timetable covering all intercity bus and commuter rail service in Massachusetts.
- Completion of the design and construction phases of the new combined intercity bus terminal proposed for the South Station complex.
- Exemption of intercity buses from the payment of tolls on turnpikes, bridges, and tunnels.
- Participation by the state in an annual joint bus purchasing program to provide centralized purchasing of all Massachusetts based carriers' requirements for new buses at favorable interest rates.
- Provision of additional park-and-ride facilities at points where intercity bus routes enter Interstate highways to begin their express run to Boston.

However, no worthwhile improvement in intercity bus services can be achieved on a sustained basis until the basic issue of carrier financing has been addressed and solved, and most intrastate carriers do not themselves have the resources required to effect a meaningful change in the regulatory environment. Therefore, it is recommended that the Executive Office of Transportation and Construction take the lead by acting as the coordinator of a joint application for the adoption of a standard statewide intercity bus fare structure.[1/] This application should be presented before the D.P.U. by the E.O.T.C. acting in behalf of all 28 intercity bus lines. This single issue is a basic: without redress of the two-to-one difference between interstate and intrastate bus fares, no significant long-term improvement in intrastate bus service can be achieved. Maintenance of the status quo is, in itself, a decision, since this will evitably lead to further decreases in the level of intrastate bus service available in Massachusetts, as measured in terms of routes, schedule frequency, ages of buses, and passengers carried.

The proposed mechanism for bringing carrier revenues from scheduled services in line with the fully allocated cost of operating scheduled services should not be viewed by the carriers as a blanket endorsement of across the board fare increases. At each step in the process the carriers will have to demonstrate first that a proposed increase would not result in any point-to-point fares higher than the recommended fare standard, and second that a proposed increase would not give the carrier a return on investment higher than the recommended return on investment standard.

1/ The D.P.U. has contracted with a C.P.A. firm for a study of the procedures of the D.P.U. in the Railway and Bus Division. This report will include the development of a model application for a simplified filing procedure, an evaluation of present procedures, and recommendations for expediting the process. The D.P.U. has also asked that the report contain an opinion on whether or not a standardized fare schedule is possible under present law. (Tramco is of the opinion that no change in legislation is necessary; adoption of a return on investment standard would permit evaluation of fare increase applications under the present law.)

I. INTRODUCTION

A. Background

There are 28 private intercity bus carriers providing scheduled services to points in Massachusetts. These carriers range in size from the nationwide Greyhound and Trailways networks, to local carriers with a small mixed fleet made up of school buses and coaches. In the middle of the spectrum are several comparatively prosperous New England-based carriers such as Bonanza, Peter Pan and Plymouth & Brockton. For the purposes of this study, intercity bus lines were defined as carriers which operate at least one scheduled round trip per day, on at least five days per week, serving at least one point in Massachusetts. Carriers whose fleet consists entirely of school buses and transit buses were excluded. Exhibit 1 on the next page lists the 28 carriers which contributed data for this study.

A total of 165 Massachusetts cities and towns receive scheduled intercity bus service. By way of comparison, there are 45 cities and towns which reveive scheduled railroad passenger service, and 10 Massachusetts cities and towns which have scheduled airline service. Thus, there are four times as many points which have bus service as have rail service, and 16 times as many points which have bus service as airline service. Clearly the role of the intercity bus line in Massachusetts, as in all of North America, is to link major centers with smaller localities where the intercity bus lines provide the only available scheduled passenger service. In addition, on some routes, a significant number of commuters ride intercity buses on a daily basis travelling to and from work. Thus, to the extent that additional motorists could be persuaded to switch from car to bus, worthwhile energy savings could be achieved and, in addition, there would be a modest reduction in traffic congestion. Policies which assure that Massachusetts cities and towns continue to receive dependable good quality bus service are clearly in the best interest not only

INTERCITY BUS LINES SERVING MASSACHUSETTS
1979

Carrier	Headquarters	Principal Route
A.B.C. Coach Line	N. Providence, RI	Providence - Boston
Barre Bus Lines	Boylston, MA	Rutland, MA - Worcester
Bay State Commuter	Stoughton, MA	Middleboro - Boston
Big W. Transit	Ashland, MA	Milford - Framingham
Bloom Bus Line	Taunton, MA	Taunton - Boston
Bonanza Bus Lines	Providence, RI	Providence - Boston
Boston Commuter	Haverhill, MA	Haverhill - Boston
Brander Bus Lines	Rehoboth, MA	Taunton - Providence
Cape Cod Bus Lines	Falmouth, MA	Provincetown - Hyannis
Concord Coach Lines	Concord, NH	Concord, NH - Boston
Englander Coach Lines	Greenfield, MA	Williamstown - Boston
Gray Line	Boston, MA	Worcester - Boston
Greyhound Lines	Phoenix, AZ	New York - Boston
Hub Bus Lines	Boston, MA	Lexington - Boston
Hudson Bus Lines	Medford, MA	Weymouth - Boston
Interstate Coach Lines	Stoughton, MA	Stoughton - Boston
Kinson Bus Lines	Georgetown, MA	Amesbury - Boston
Medeiros Bus Company	Fairhaven, MA	New Bedford - Boston
Michaud Bus Lines	Salem, MA	Rochester, NH - Boston
Peter Pan Bus Lines	Springfield, MA	Springfield - Boston
Pierce Bus Line	Dracut, MA	Dracut - Lowell
Plymouth & Brockton	Plymouth, MA	Hyannis - Boston
Ritchie Bus Lines	Northboro, MA	Northboro - Boston
Suburban Bus Lines	Framingham, MA	Framingham - Boston
Trailways Bus System	Dallas, TX	New York - Boston
Travel Time	N. Oxford, MA	Webster - Worcester
Trombley Motor Coach	N. Andover, MA	Lawrence - Boston
Vermont Transit	Burlington, VT	Burlington, VT - Boston

of the intercity bus lines, but also of a majority of the citizens of the Commonwealth.

There are at least four distinct market segments which make use of intercity bus service in Massachusetts:

- Persons travelling on interstate journeys between points which are also linked by rail and/or airline service. These passengers choose to spend time travelling by bus in order to save money; the bus lines' share of this market is dependent upon offering the lowest available fare in the market.

- Commuters travelling to and from work between homes in smaller communities and jobs in larger urban centers. These passengers are prepared to pay higher fares for better service, since their other travel option, driving a car to work, also involves a daily out-of-pocket cost for gas, tolls and parking.

- Students travelling between schools and colleges and their home town on Fridays and Sundays during the school year.

- Vacationers travelling between their home or job, and Cape Cod or western Massachusetts, on Fridays and Sundays for 10-12 weeks during the summer season.

Passengers making up of these market segments, as well as other market segments, can be expected to respond in different ways to various combinations of price, scheduling, and comfort making up the service level offered on a specific route.

B. Purpose and Scope

At the present time, there is no really effective coordination, at the statewide level, of the intercity bus carriers serving Massachusetts. The Executive Office of Transportation and Construction (E.O.T.C.) sets policy aimed at improving energy efficiency by encouraging greater use of the public transportation modes. The Department of Public Utilities (D.P.U.) rules on applications for route certificates for scheduled service, and approves or disapproves applications for fare increases.

The purpose of this study was to aid in the development of a more unified statewide policy aimed at encouraging the development of market responsive and financially solvent intercity bus carriers, capable of offering dependable, good quality service to a wide variety of potential passengers.

Specifically, this study was accomplished in the following steps:

- Compilation of an in-depth financial and operational analysis of one typical large carrier and one typical small carrier.

- Preparation of an analysis of the regulatory climate in Massachusetts as it affects intercity bus lines.

- Formulation of recommended policies by which the Commonwealth could assist intercity bus lines by means of indirect or, if necessary, direct subsidies.

- Development of management standards with which interested carriers could inprove their operation, maintenance, and marketing.

The scope of this study was limited to that which could be accomplished in a four month study period and within the constraints of a $15,000 overall budget. Thus, the study was not intended as an in-depth analysis either of every intercity bus line serving Massachusetts, or of every problem which these carriers face. Instead, be selecting one large and one small carrier, as representative of other similar carriers, this study was intended to highlight the major problems which limit the growth of intercity bus lines, and to identify steps which the state could take to remove these obstacles.

C. Approach

In our approach to this study special focus was given to clarifying the major issues which the Executive Office of Transportation and Construction felt were affecting the intercity bus industry. These included:

- The extent to which revenues from school and charter services cross-subsidize the cost of operating scheduled intercity services.

- The identification of those variables, such as fleet utilization and seat load factors, which are most important in determining the profitability of bus operations.

- The degree to which current state regulatory procedures are conducive to the development of a dependable, efficient and rational system of good quality bus service.

- The management methods which carriers could adopt to improve the efficiency and market responsiveness of their services.

- The steps which Massachusetts might follow to encourage further development of intercity bus services.

- The degree to which an improved marketing program, by either the Commonwealth or the carriers, could be expected to stimulate passenger demand.

Development of answers to these and similar questions within the comparatively modest available budget required that the consultant bring to this study a working knowledge of the market dynamics affecting intercity bus ridership, as well as a complete understanding of the principles of cost-effective bus operations. For example, offering relatively low fares for regular commuters on intercity buses could be perceived as benefitting passengers and encouraging bus ridership, thereby reducing automobile traffic congestion. However, if the commuter fares allowed by the state rate-setting machinery are so low as to prevent the carriers from replacing buses which have reached the end of their useful service life, then the result can only be a gradual deterioration of the bus fleet deployed in Massachusetts. Should this occur, potential new riders will be discouraged rather than encouraged.

In contrast, fares which are high enough to permit the carriers to make regular purchases of new buses, thereby keeping their average age of fleet low and their service standard high, might push bus fares to a level at which the potential for increased ridership could be dampened by the perceived high cost of bus travel. As the capital cost of new buses continues to increase, and as the desirability of encouraging the use of more fuel efficient modes of transportation becomes greater, achievement of an optimum balance between fares and ridership has become a priority decision area for state government.

Carrier Selection

Exhibit 2 on the next page lists the 28 intercity bus lines serving Massachusetts, categorized by size and by headquarters locations. The criteria which guided the selection of the one large and one small Massachusetts-based carrier for detailed analysis included the following:

- To facilitate the comparison of data from both carriers, preference was given to carriers having one or more routes to/from Boston via Interstate highways.
- Carriers which routinely rely on the leasing of buses with drivers to perform their schedules were eliminated from consideration, since in such cases it would be necessary to examine the records of both the lessor and the lessee.
- Carriers which are wholly owned subsidiaries of larger carriers were eliminated from consideration, since once again it would be necessary to examine the records of both carriers.

Using the above criteria, the list of 24 Massachusetts-based carriers was reduced to eight:

- Large - Gray Line, Peter Pan, Trombley
- Small - Bay State, Bloom, Interstate, Kinson, Medeiros

A final and important criteria was the willingness of the carrier to make available both the data and the staff time needed to meet the goals of this study. As a result, the following carriers were selected:

- Large - Peter Pan Bus Lines, Inc.
  1776 Main Street, Springfield, MA 01103
- Small - Kinson Bus Lines
  Railroad Avenue, Georgetown, MA 01830

Meetings with the management of both Kinson and Peter Pan were held during the first week of the study.

INTERCITY BUS LINES SERVING MASSACHUSETTS BY CATEGORY

Carrier Size	Based In Massachusetts		Based Outside Massachusetts	
Large 24-75 buses	Gray Line Peter Pan P & B Trombley	4	Bonanza Greyhound Trailways Vermont	4
Small 2-16 buses	Barre Bay State Big W Bloom Boscom Brander Cape Cod Englander Hub Hudson Interstate Kinson Medeiros Michaud Pierce Ritchie Suburban Travel Time	18	A.B.C. Concord	2
			TOTAL	28

II. OPERATIONAL ANALYSIS OF KINSON BUS LINES

This chapter presents an operational analysis of Kinson Bus Lines. As explained in Chapter One, Kinson Bus Lines was selected as a representative Massachusetta-based small intercity bus line.

Kinson Bus Lines, based in Georgetown, Massachusetts, operates scheduled commuter bus service between Amesbury and Newburyport, and Boston. Kinson also operates charter bus service from points of origin on its routes. In addition, Kinson is actively engaged in the operation of contract school bus service for the towns of Boxford, Georgetown, Newburyport and Topsfield. The Kinson fleet includes 75 school buses and 10 intercity coaches. The maintenance facility on Railroad Avenue in Georgetown consists of two pre-fabricated metal buildings housing three bus bays, shops, spare parts store and a dispatch office. An adjacent private home has been converted for use as business offices. With the exception of the three bus bays, all bus parking is outdoors.

Basil S. Kinson, Inc., d/b/a Kinson Bus Lines is a family owned business with founder Basil S. Kinson as owner of 100 percent of the stock. The Kinson Bus Lines financial year ends June 30th. This chapter deals only with operational aspects of Kinson's scheduled intercity bus service. A financial analysis is presented in Chapter VI.

Exhibit 3 on the next page presents the management organization of Kinson Bus Lines. Of a total staff of 81, an estimated 12 people are required to support the operation of the scheduled intercity bus service and charter service. The remaining 69 staff members are primarily involved in the operation of contract school bus service.

As shown in Exhibit 4, the Kinson fleet is made up of 10 intercity buses with an everage age of 6.7 years. of these buses 6 have lavatories and 4 do not. All of Kinson's intercity buses are air conditioned and have reclining seats and luggage lockers.

Kinson Bus Lines operates scheduled service over a route extending from Amesbury to Boston via Newburyport, Newbury, Rowley, Ipswich and Topsfield. Exhibit 5 presents the Kinson timetable currently in effect. There are four inbound trips in the morning and four outbound trips in the afternoon, all at times convenient for commuters. No service is offered during off-peak hours.

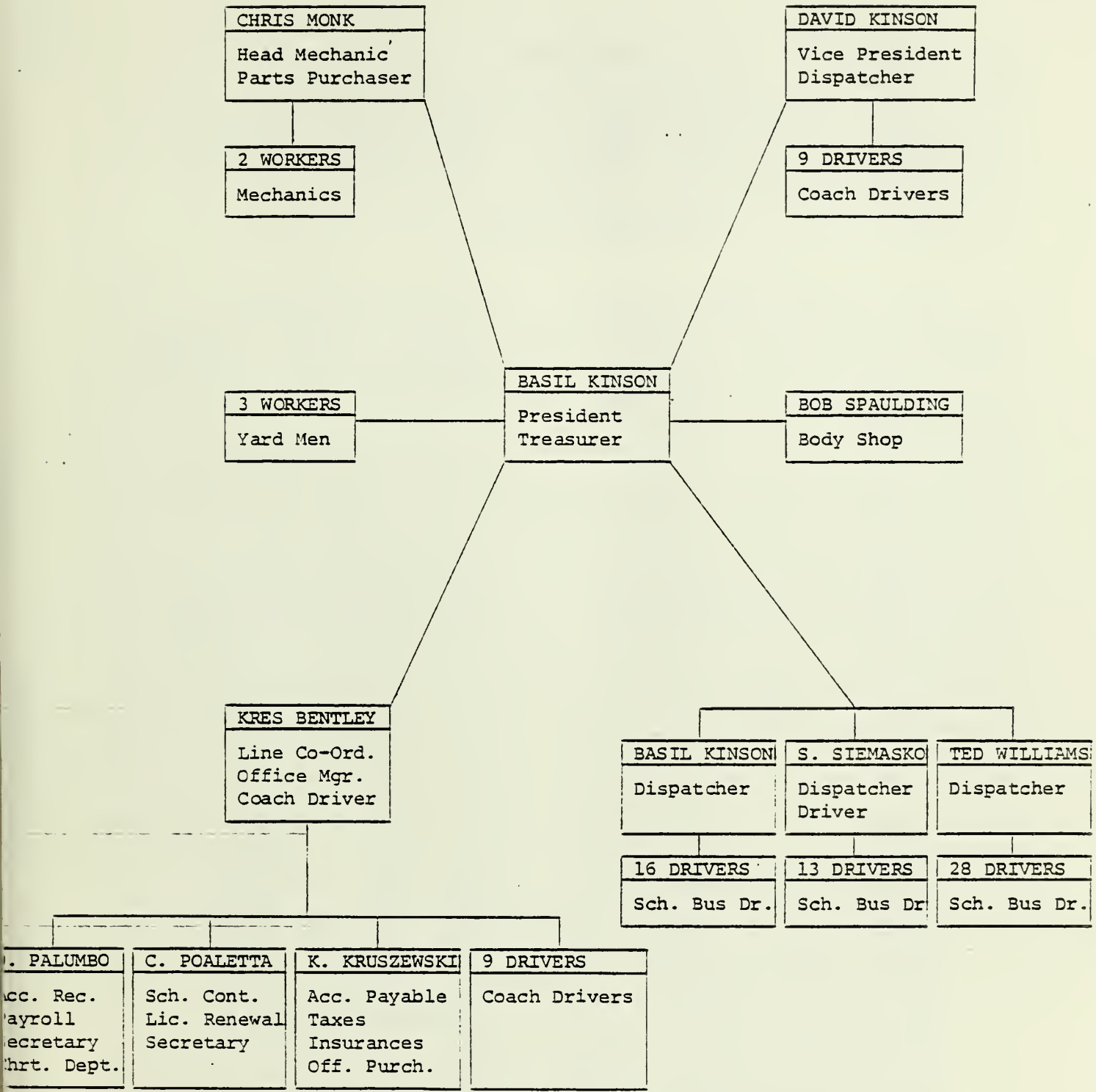
Exhibit 6, in 4 pages, is a set of Route Descriptions for Kinson Bus Lines. Each page lists the itinerary of streets and highways for one of the four route variations which make up Kinson's public timetable.

As shown in Exhibit 7, operation of the public timetable requires 4 of the 10 intercity buses in the Kinson fleet. Each of these four buses is scheduled to operate an average of 5.5 hours and 170 miles per day. Because almost all of Kinson's passengers are commuters, each trip operates in scheduled service one way only. In the morning for example, buses leave the Georgetown garage and run empty to the first point of passengers pickup in Amesbury and Newburyport. After the passengers have been dropped off in Boston, each bus returns empty or "deadhead" to the garage. Since the deadhead mileage is thus equal to the revenue mileage, half of the total mileage scheduled daily is run in non-revenue service.

At Newburyport and Topsfield, two of the primary passenger generating points on Kinson's route, Kinson faces competition from other intercity bus carriers. Between Newburyport and

KINSON BUS LINES

MANAGEMENT ORGANIZATION



Total Staff: 81

MASSACHUSETTS
INTERCITY BUS CARRIER
FLEET SURVEY

NAME OF CARRIER: Kinson Bus Lines
STREET ADDRESS: Railroad Avenue
CITY, STATE, ZIP: Georgetown, MA 01830
TELEPHONE: (617) 352-8787
PERSON TO CONTACT: Basil S. Kinson
PRINCIPAL ROUTE: Newburyport-Boston

MODEL YEAR	MAKE	NUMBER OF BUSES	NUMBER OF SEATS	WASH-ROOM	AIR CONDI-TIONED	RECLIN-ING SEATS	LUGGAGE LOCKERS
1976	GMC	2	49	X	X	X	X
1974	GMC	1	49	X	X	X	X
1972	GMC	3	49	No	X	X	X
1967	GMC	1	45	X	X	X	X
1966	GMC	2	45	X	X	X	X
1952	GMC	1	41	No	X	X	X
	Total	10					

Average age of fleet=6.7 years

Kinson also operates a fleet of 75 School Buses

SCHEDULE FOR COMMUTER SERVICE TO BOSTON

KINSON BUS LINES
GEORGETOWN, MA 01833
(617) 352-8787

Inbound

Bus Stops	Route 11	Route 21	Route 12	Route 22
Boyles Pharmacy-Amesbury	6:20 a.m.		6:50 a.m.	
Dede's Bus Depot-Newburyport	6:30 a.m.	6:45 a.m.	7:00 a.m.	7:15 a.m.
YMCA-State Street-Newburyport	6:38 a.m.		7:07 a.m.	7:05 a.m.
Newbury Common	6:45 a.m.		7:12 a.m.	
Howard Johnson's-Byfield		6:55 a.m.		
Agawam Diner-Rowley	6:55 a.m.		7:23 a.m.	
Route One-Ipswich	7:00 a.m.		7:25 a.m.	
Parsons Corner-Topsfield	7:03 a.m.		7:30 a.m.	
Topsfield Center		7:10 a.m.	7:35 a.m.	
Route 1 & Route 95	7:08 a.m.		7:40 a.m.	
Haymarket Square-Boston	7:35 a.m.	7:40 a.m.	8:05 a.m.	8:10 a.m.
Greyhound Terminal-Boston	7:45 a.m.	7:50 a.m.	8:10 a.m.	8:15 a.m.

Outbound

Bus Stops	Route 12	Route 21	Route 12	Route 12
Greyhound Terminal-Boston	4:20 p.m.		4:40 p.m.	5:15 p.m.
Haymarket Square-Boston	4:30 p.m.	4:30 p.m.	4:50 p.m.	5:30 p.m.
Route 1 & Route 95	5:00 p.m.		5:25 p.m.	6:00 p.m.
Topsfield Center	5:05 p.m.		5:30 p.m.	6:05 p.m.
Parsons Corner-Topsfield	5;10 p.m.		5:35 p.m.	6:10 p.m.
Route One-Ipswich	5:13 p.m.		5:38 p.m.	6:13 p.m.
Agawam Diner-Rowley	5:15 p.m.		5:40 p.m.	6:15 p.m.
Howard Johnson's-Byfield		5:10 p.m.		
Newbury Common	5:20 p.m.		5:45 p.m.	6:22 p.m.
YMCA-State Street-Newburyport	5:25 p.m.	5:30 p.m.	5:50 p.m.	6:25 p.m.
Dede's Bus Depot-Newburyport	5:30 p.m.	5:25 p.m.	5:55 p.m.	6:30 p.m.
Boyles Pharmacy-Amesbury	5:45 p.m.		6:10 p.m.	6:45 p.m.

KINSON BUS LINES
ROUTE DESCRIPTION
ROUTE 11

Inbound	Outbound
Friend Street, Amesbury	Not Scheduled
School Street	
Main Street	
Macy Street	
Interstate 95	
Storey Avenue, Newburyport	
High Street	
Green Street	
Merrimac Street	
State Street	
High Street - Route 1A	
Hanover Street	
Route 1	
Route 95	
Route 1	
Route C1	
Mystic River Bridge	
Central Artery	
Haymarket Square	
New Sudbury Street	
Tremont Street	
Stuart Street	
Eliot Street	
St. James Avenue	
Greyhound Terminal	

KINSON BUS LINES
ROUTE DESCRIPTION
ROUTE 12

Inbound	Outbound
Friend Street, Amesbury	Greyhound Terminal
School Street	Stuart Street
Main Street	Charles Street
Macy Street	Cambridge Street
Interstate 95	New Sudbury Street
Storey Avenue, Newburyport	Haymarket
High Street	Central Artery
Green Street	Mystic River Bridge
Merrimac Street	Route C1
State Street	Route 1
High Street - Route 1A	Route 95
Hanover Street	Route 1
Route 1	South Main Street
Ipswich Road, Topsfield	Haverhill Street
Haverhill Street	Ipswich Road, Topsfield
South Main Street	Route 1
Route 1	Hanover Street
Route 95	High Street, Route 1A
Route 1	State Street
Route C1	Merrimac Street
Mystic River Bridge	Green Street
Central Artery	High Street
Haymarket Square	Storey Avenue, Newburyport
New Sudbury Street	Interstate 95
Tremont Street	Elm Street
Stuart Street	Friend Street, Amesbury
Eliot Street	
St. James Avenue	
Greyhound Terminal	

KINSON BUS LINES
ROUTE DESCRIPTION
ROUTE 21

Inbound	Outbound
Storey Avenue, Newburyport	Greyhound Terminal
Interstate 95	Stuart Street
Central Street Byfield Interchange, HoJo	Charles Street
Interstate 95	Cambridge Street
Topsfield Road	New Sudbury Street
Washington Street	Haymarket Square
Main Street	Central Artery
Route 1	Mystic River Bridge
Route 95	Route C1
Route 1	Route 1
Route C1	Route 95
Mystic River Bridge	Central Street, Byfield Interchange
Central Artery	Interstate 95
Haymarket Square	Storey Avenue, Newburyport
New Sudbury Street	High Street
Tremont Street	Green Street
Stuart Street	Merrimac Street
Eliot Street	State Street, Newburyport
St. James Avenue	
Greyhound Terminal	

KINSON BUS LINES
ROUTE DESCRIPTION
ROUTE 22

Inbound	Outbound
State Street, Newburyport	Not Scheduled
High Street	
Storey Avenue	
Interstate 95	
Route 1	
Route C1	
Mystic River Bridge	
Central Artery	
Haymarket Square	
New Sudbury Street	
Tremont Street	
Stuart Street	
Eliot Street	
St. James Avenue	
Greyhound Terminal	

KINSON BUS LINES, GEORGETOWN, MASS. 01833 SCHEDULE EFFECTIVE SEPTEMBER 1979

BUS ASSIGNMENTS - MONDAY TO FRIDAY

Bus										Bus Hours	Bus Miles
1	s540 x550	11 - 620	=	830	s305 x315	12 420 A	=	605		5:30	177
2	s605 x615	21 - 645	=	845	s320 x330	21 430 A	=	545		4:45	160
3	s610 x620	12 - 650	=	905	s330 x340	12 440 A	=	630		5:35	179
4	s620 x630	22 - 705	=	900	s335 x345	12 515 A	=	720		6:05	169
									Total	21:55 Hours	685 Miles
									Average Per Bus	5:30 Hours	170 Miles 31 mph.

Key: s Sign on at garage
x Pull out from garage
- Outbound trip not scheduled; operate inbound only
A Inbound trip not scheduled; operate outbound only
= Return to garage at time shown

Boston, Greyhound carries passengers on its route between Boston and Bangor, Maine. Between Topsfield and Boston, Boscom Lines carries passengers on its route between Boston and Haverhill. Exhibit 8 shows the combined timetables of these carriers at Newburyport and Topsfield. Between Newburyport and Boston, Kinson provides the peak hour service in both directions, and Greyhound schedules off-peak service. Between Topsfield and Boston, this pattern is repeated, with Kinson providing peak hour service and Boscom scheduling only off-peak service.

In general, demand for intercity bus service is seasonal, with periods of peak demand occurring in months which include holidays and/or school vacation periods. Exhibit 9 shows the distribution of demand by month for a major intercity carrier. Since a "typical" month would account for 8.3 percent of a year, the exhibit suggests that a composite of data for September and October would provide information for an average month. In September 1979, Kinson sold the equivalent of 5,941 one-way rides. In October 1979, Kinson sold 6,019 one-way rides, an increase of 1 percent. Accordingly, data on ridership and revenues for October 1979 has been used as representative of a typical month.

Exhibit 10 shows the Kinson Bus Lines fares in effect in October 1979.[1/] Kinson offers 20 ride and 10 ride commuter books, and round trip and one-way tickets.

1/Throughout this study data for the fourth quarter of 1979 is utilized; this was the most recent reporting period for which data from all carriers was available.

COMBINED TIMETABLE
NEWBURYPORT - BOSTON
MONDAY THROUGH FRIDAY

Carrier	Leave Newburyport	Carrier	Leave Boston
G	5:00 am	G	1:50 am
K	6:30	G	8:00
K	6:45	G	2:15
K	7:00	G	4:15
K	7:15	K	4:20
G	7:50	K	4:40
G	10:15	K	5:15
G	12:10	G	5:45
G	2:10	G	11:15 pm
G	6:45 pm		

Key to Carriers: G = Greyhound Lines
K = Kinson Bus Lines

COMBINED TIMETABLE
TOPSFIELD - BOSTON
MONDAY THROUGH FRIDAY

Carrier	Leave Topsfield
K	7:10 am
K	7:35
B	9:35
B	1:10 pm

Carrier	Leave Boston
B	11:00 am
B	2:30
K	4:20
K	4:40
K	5:15
B	5:45 pm

Key to Carriers: B = Boscom Lines
K = Kinson Bus Lines

COMMONWEALTH OF MASSACHUSETTS
INTERCITY BUS STUDY
SEASONALITY OF DEMAND IN 1978

Month of Year	Percent Share of Annual Sales By Month
January	7.2%
February	6.0
March	8.0
April	7.7
May	7.0
June	7.9
July	11.3
August	12.9
September	8.8
October	7.2
November	6.6
December	9.4
Total	100.0%

Source: Major Intercity Bus line as reported to Tramco, Inc.

KINSON BUS LINES
TICKET PRICES BY TYPE OF TICKET
OCTOBER 1979

Market	Ticket Category			
	20 Ride	10 Ride	2 Ride	1 Ride
Boston - Topsfield	$29.60	$16.45	-	$1.85
- Ipswich	-	-	-	1.90
- Rowley	32.85	18.50	-	2.05
- Newbury/Byfield	33.70	18.95	-	2.10
- Newburyport	36.15	20.35	$4.50	2.25
- Amesbury	42.70	24.05	-	2.65

Note: Where no price is shown in a given market, no ticket in that category was sold in October 1979.

As shown in Exhibit 11, trip lengths on Kinsons's routes range from 24 to 45 miles. Expressed on a cents per mile basis, Kinson's published one-way fares range from 7.7¢ in the Boston - Topsfield market to 5.7¢ in the Boston - Newburyport market. The computed fare basis can be found by letting "x" equal the fare per mile, "y" equal the boarding charge per trip, and then solving for "x". On this basis, Kinson's one-way fares can be computed as an average $1.10 boarding charge per trip plus 3¢ per mile travelled.

Exhibit 12 compares Kinson's average price per ride for one-way tickets versus commuter tickets: the 10 ride commuter books are price at a 10 percent discount; the 20 ride commuter books are priced at a 20 percent discount.

Exhibit 13 shows the distribution of rides sold by market. As shown in Exhibit 14, 55 percent of Kinson passengers travel in the Boston - Newburyport market, and 22 percent travel in the Boston - Topsfield market.

Exhibit 15 shows the distribution of rides sold by type of ticket: 88 percent of Kinson's passengers utilized either 10 ride or 20 ride commuter tickets which are sold at a discount.

Exhibit 16 shows Kinson's average revenue dilution resulting from the sale of discounted commuter tickets. If all of the 6,019 rides sold in October 1979 had been sold at Kinson's published one-way fare, then October revenue would have been $13,070. Actual October revenue was $10,931. Thus, the average discount per ticket sold was 16.4 percent.

KINSON BUS LINES

ONE-WAY FARE PER MILE

OCTOBER 1979

Market	One-way Fare	One-way Miles	Fare Per Mile
Boston - Topsfield	$1.85	24	7.7¢
Boston - Ipswich	1.90	28	6.8
Boston - Rowley	2.05	30	6.8
Boston - Newbury/Byfield	2.10	37	5.7
Boston - Newburyport	2.25	39	5.8
Boston - Amesbury	2.65	45	5.9

KINSON BUS LINES

PASSENGER FARES

OCTOBER 1979

Market	One-way Fare	Ten Rides	Twenty Rides
Boston - Topsfield	$1.85	$16.45	$29.60
Boston - Ipswich	1.90	16.95	30.40
Boston - Rowley	2.05	18.50	32.85
Boston - Newbury/Byfield	2.10	18.95	33.70
Boston - Newburyport	2.25	20.35	36.15
Boston - Amesbury	2.65	24.05	42.70
Total for 6 markets:	$12.80	$115.25	$205.40
Average price per ride:	$ 2.13	$ 1.92	$ 1.71
Average discount per ride:		10%	20%

KINSON BUS LINES

TICKET SALES BY TYPE OF TICKET

OCTOBER 1979

Market	Number of Sales By Category				Total Rides Sold[1]
	20 Ride	10 Ride	2 Ride	1 Ride	
Boston - Topsfield	53	11	-	144	1314
Boston - Ipswich	-	-	-	8	8
Boston - Rowley	20	2	-	53	473
Boston - Newbury/Byfield	15	5	-	40	390
Boston - Newburyport	125	37	44	354	3312
Boston - Amesbury	22	4	-	42	522
Total for 6 markets:	235	59	44	641	6019

[1] Computed as: (20 x 20 ride tickets) + (10 x 10 ride tickets) + (2 x 2 ride tickets) + number of one ride tickets = Total Rides Sold.

KINSON BUS LINES

DISTRIBUTION OF RIDERSHIP

OCTOBER 1979

Market	Total Rides Sold	Percent Share
Boston - Topsfield	1314	22%
Boston - Ipswich	8	-
Boston - Rowley	473	8
Boston - Newbury/Byfield	390	6
Boston - Newburyport	3312	55
Boston - Amesbury	522	9
	6019	100%

KINSON BUS LINES

DISTRIBUTION OF TICKET SALES

BY TYPE OF TICKET

OCTOBER 1979

Ticket Category	Tickets Sold	Rides Sold	Percent Distribution
20 ride	235	4700	78%
10 ride	59	590	10
2 ride	44	88	1
1 ride	641	641	11
Totals:	979	6019	100%

KINSON BUS LINES

AVERAGE REVENUE DILUTION

OCTOBER 1979

Market	Rides Sold	One-way Fare	Revenue At Full Fare	Actual Revenue[a]
Boston - Topsfield	1314	1.85	$ 2431	$ 2016
Boston - Ipswich	8	1.90	15	15
Boston - Rowley	473	2.05	970	803
Boston - Newbury/Byfield	390	2.10	819	684
Boston - Newburyport	3312	2.25	7452	6266
Boston - Amesbury	522	2.65	1383	1147
Totals:	6019		$13070	$10931
		Average Revenue Dilution		16.4%

[a] Includes on-line sales only; $47 in revenue from tickets sold by other carriers excluded.

From the revenue data in Exhibit 16 and the data on scheduled bus miles in Exhibit 7, Kinson's average revenue per bus mile can be computed. Kinson's schedule calls for the operation of 685 bus miles per day; in October 1979 there were 21 business days on which the schedule was operated. Thus, a total of (685 x 21) 14,385 scheduled bus miles were operated during the month. By performing this schedule, Kinson earned revenues of $10,931 which is equivalent to revenue of 76¢ per bus mile.

The data in Exhibit 16 also permits computation of Kinson's average load factor. The sale of 6,019 rides during 21 operating days is equivalent to an average of 287 passengers per day. Typically, the bus schedule is operated with three buses seating 49 and one bus seating 45. The average number of seats offered per day is computed as follows: [(3 x 49) + (1 x 45)] x 2 trips per bus = 384 seats per day. Thus, on a given day, an average of (287 ÷ 384) 75 percent of available seats were utilized.

Exhibit 17 shows that Kinson passengers travelled 213,038 passenger miles in October 1979. If all of these passengers had paid full fare, the revenue earned would have been $13,070 (Exhibit 16). This would have been equivalent to an average fare of 6.1¢ per passenger mile. In fact, Kinson's revenues were $10,931. This is equivalent to an average fare of 5.1¢ per passenger mile.

Kinson's break-even load factor at October 1979 fares can be computed as follows. As shown above, a total of 384 seats were offered on 8 scheduled trips, making an average of (384 ÷ 8) 48 seats offered per trip. If one assumes that Kinson's average fully allocated operating cost in 1979 was $1.20 per bus mile round trip, then this is equivalent to an operating cost of $2.40 per bus mile one-way, since seats are offered in one direction only on each scheduled round trip. To earn revenues of $2.40 per bus mile at an average revenue of 5.1¢ per passenger mile would

KINSON BUS LINES
PASSENGER MILES PER MONTH
OCTOBER 1979

Market	One-Way Miles	Rides Sold	Passenger Miles
Boston - Topsfield	24	1,314	31,536
- Ipswich	28	8	224
- Rowley	30	473	14,190
- Newbury/Byfield	37	390	14,430
- Newburyport	39	3,312	129,168
- Amesbury	45	522	23,490
Total		6,019	213,038

Average Trip Length 35 miles

require an average of (240 ÷ 5.1) 47 passengers per trip. Thus, at October 1979 fares, Kinson's break-even load factor was (47 ÷ 48) 98 percent of seats offered. As was shown above, Kinson's actual load factor in October 1979 was 75 percent. As thus should be apparent, Kinson's scheduled intercity bus operations are not profitable on a fully allocated cost basis.

III. OPERATIONAL ANALYSIS OF PETER PAN BUS LINES

This Chapter presents an operational analysis of Peter Pan Bus Lines. As explained in Chapter I, Peter Pan Bus Lines has been selected as a representative Massachusetts - based large intercity bus line.

Peter Pan Bus Lines, Inc. is based in Springfield, Mass. Peter Pan's primary scheduled intercity bus route operates between Springfield and Boston. In addition, Peter Pan is actively engaged in the operation of chartered bus service, and energetically promotes a program of escorted tours.

The Peter Pan Bus fleet consists of 49 air conditioned intercity coaches. Peter Pan's base of operations is the Springfield Bus Terminal, which handles the scheduled services of Bonanza, Greyhound, Peter Pan, Trailways, and Vermont Transit. An adjacent garage building houses seven maintenance stalls, a servicing lane, a machine shop, spare parts stores, and indoor parking for 60 buses. Both the Springfield Bus Terminal and the Peter Pan garage are modern and well equipped, having been completed in 1969 - 1971.

Peter Pan Bus Lines, Inc. is a family-owned business. The principal stockholders are Peter Picknelly, President; Mrs. Peter Picknelly, Sr., Chairman; and a Trust set up by the late Peter Picknelly, Sr. The Peter Pan Bus Lines financial year ends December 31st. A financial statement for the fiscal year ending December 31, 1978 has been provided by Peter Pan's auditors Meyers Brothers, Handelsman, Menzel, and Adeletti of Springfield. This memorandum deals only with operational aspects of Peter Pan's scheduled intercity bus services. A financial analysis is presented in Chapter VI.

Exhibit 18 on the next page presents the management organization of Peter Pan Bus Lines. The staff of 115 includes 73 in operations, 23 in maintenance, and 19 in administration, all of whom are directly engaged in the operation of scheduled and chartered intercity bus services.

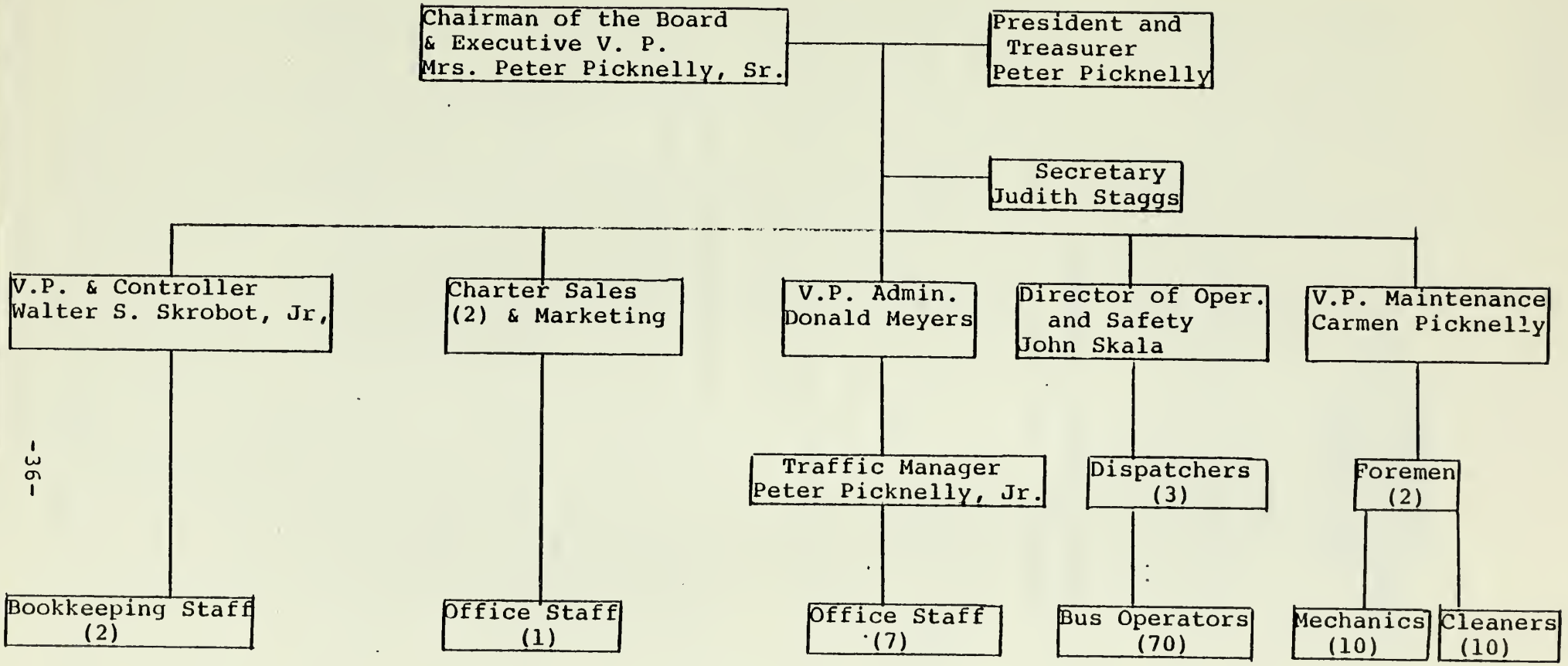
As shown in Exhibit 19, the Peter Pan fleet is made up of 49 intercity buses with an average age of 3.6 years. Of these 46 are owned by Peter Pan, and 3 are leased from the Pioneer Valley Transit Authority (PVTA). By agreement between Peter Pan and PVTA the use of these three buses is limited to routes falling within the PVTA district. On certain local routes, the PVTA reimburses Peter Pan for losses incurred under a purchase of service contract. With the exception of the 3 PVTA buses, all of the buses in the Peter Pan fleet are lavatory equipped and air conditioned.

Peter Pan Bus Lines operates daily scheduled service over the following routes:

- Springfield - Boston
- Springfield - Amherst (University of Mass.)
- Springfield - Worcester
- Springfield - Palmer
- Springfield - South Hadley
- Springfield - Westfield
- Springfield - West Hartford, Hartford
- Springfield - Eastfield Mass (PVTA Service)
- Springfield - Bradley Airport, Conn. (Hartford - Springfield International Airport)

PETER PAN BUS LINES, INC.

ORGANIZATION STRUCTURE


Chairman of the Board & Executive V. P. Mrs. Peter Picknelly, Sr.
President and Treasurer Peter Picknelly
Secretary Judith Staggs
V.P. & Controller Walter S. Skrobot, Jr.
Charter Sales (2) & Marketing
V.P. Admin. Donald Meyers
Director of Oper. and Safety John Skala
V.P. Maintenance Carmen Picknelly
Traffic Manager Peter Picknelly, Jr.
Dispatchers (3)
Foremen (2)
Bookkeeping Staff (2)
Office Staff (1)
Office Staff (7)
Bus Operators (70)
Mechanics (10)
Cleaners (10)

Total Staff: 115

Exhibit 18

MASSACHUSETTS
INTERCITY BUS CARRIER
FLEET SURVEY

NAME OF CARRIER: Peter Pan Bus Lines, Inc.
STREET ADDRESS: 1776 Main Street
CITY, STATE, ZIP: Springfield, MA 01103
TELEPHONE: (413) 781-2900
PERSON TO CONTACT: Peter Picknelly, President
PRINCIPAL ROUTE: Springfield-Boston

MODEL YEAR	MAKE	NUMBER OF BUSES	NUMBER OF SEATS	WASH-ROOM	AIR CONDI-TIONED	RECLIN-ING SEATS	LUGGAGE LOCKERS
1979	Prevost Mirage	3	46	X	X	X	X
1979	MCI	5	49	X	X	X	X
1978	MCI	2	45	X	X	X	X
1977	MCI	2	45	X	X	X	X
1977	MCI 1/	3	41	No	X	X	X
1976	MCI	3	45	X	X	X	X
1975	MCI	9	49	X	X	X	X
1975	MCI	6	45	X	X	X	X
1974	MCI	2	49	X	X	X	X
1974	MCI	4	45	X	X	X	X
1973	GMC	4	49	X	X	X	X
1972	GMC	5	49	X	X	X	X
1971	GMC	1	49	X	X	X	X
	Total	49					

1/ Leased from PVTA.

Average age of fleet=3.6 years

Peter Pan's primary route extends from Amherst to Boston, via Springfield. Taking into account intermediate points such as Northampton, Palmer and Worcester, about 80 percent of Peter Pan's passengers originate and terminate along this main line. To serve this primary market, many Amherst - Springfield buses are through-routed Springfield - Boston and vice versa. In addition, Peter Pan operates a daily Amherst - Boston express service bypassing Springfield.

Peter Pan's operating authority between Springfield and Boston includes the right to serve Logan Airport. Two Peter Pan Springfield - Boston trips are through-routed to Logan Airport. Peter Pan also operates a Cape Cod route between Springfield and Hyannis/Woods Hole. This service is operated on weekends in the winter and daily in the summer. In addition, Peter Pan operates a route between Springfield and Deerfield on Fridays and Sundays. This service is operated at times convenient for students at Deerfield Academy.

Exhibit 20 presents the Peter Pan timetable currently in effect. Service from Springfield to Boston is operated hourly from 7:15am to 6:15pm. Operation of the other Peter Pan routes is scheduled to connect with Springfield - Boston trips in a hub and spoke pattern centered on Springfield. In addition, the Springfield Bus Terminal also provides scheduled connections with the services of Bonanza, Greyhound, Trailways, and Vermont Transit, making Springfield the focal point for scheduled bus service in western Massachusetts. The Springfield Bus Terminal, operated by the carriers whose services it handles, is the only full service bus terminal in Massachusetts which houses all intercity carriers under one roof.

TABLE A — READ DOWN

	ESSH	Fri	FSu	FSu	Fri	Sun
UNIVERSITY OF MASS. Lv	7 30	12 01	•2 00	•4 00	5 00	5 00
Amherst Center Lv	7 35	12 05	•2 05	•4 05	5 05	5 05
Northampton Lv	7 50	12 20	•2 20	•4 20	5 20	5 20
Holyoke Lv	↓	↓	↓	↓	↓	↓
Rodeway Inn Lv	8 22	↓	↓	↓	↓	↓
EXPRESS VIA MASS. TURNPIKE	↓	↓	↓	↓	↓	↓
Natick Ar	↓	1 45	•3 45	•5 45	6 45	6 45
BOSTON, MASS. Ar	9 45	2 10	•4 10	•6 10	7 10	7 10

TABLE B — READ DOWN

	ESSa	Fri	Fri	Sun	Sun	Sun
BOSTON, MASS. Lv	4 15	5 30	6 45	7 00	8 00	9 00
Natick Lv	↓	L555	L7 10	L 7 25	L 8 25	L 9 25
EXPRESS VIA MASS. TURNPIKE	↓	↓	↓	↓	↓	↓
Mt. Holyoke College Ar	↓	↓	↓	8 45	↓	↓
Hampshire College Ar	↓	↓	↓	9 00	↓	↓
Northampton Ar	6 05	7 20	8 35	↓	9 50	10 50
Amherst Center Ar	6 20	7 35	8 50	9 05	10 05	11 05
UNIVERSITY OF MASS. Ar	6 25	7 40	8 55	9 10	10 10	11 10

The above service may be limited to one bus on each schedule shown. Unlimited seating capacity will be offered on service via Springfield as shown in Tables 1A and 1B.
Friday and Sunday service in effect only when U. Mass. is in session.
Special Sunday service shown above does not begin until January 27.
Special Friday service shown above does not begin until January 25.
■—Operates Monday, Feb. 18 **instead of** Sunday, Feb. 17.

Peter Pan Takes You There
From BOSTON and SPRINGFIELD throughout the Year

Daily—Except Monday	
Lv. Boston	10:15 AM
Ar. Sturbridge Vil.	12:14 PM
Lv. Sturbridge Vil.	5:11 PM
Ar. Boston	6:40 PM

Daily—Except Monday	
Lv. Springfield	11:15 AM
Ar. Sturbridge Vil.	12:09 PM
Lv. Sturbridge Vil.	4:55 PM
Ar. Springfield	6:00 PM

TABLE F — READ DOWN

	ESH	Dly
BOSTON, MASS. PPB Lv	↓	5 30
Natick Lv	↓	5 55
Springfield Ar	↓	7 15
Worcester Lv	4 15	↓
Springfield Ar	↓	6 00
Amherst Lv	5 45	6 20
Northampton Lv	6 05	6 40
Holyoke Lv	6 20	6 55
Springfield Ar	6 35	7 10
Springfield, Mass. Lv	7 00	7 20
Bradley Airport, Conn. Ar	7 25	↓
Windsor, Conn. Ar	7 35	↓
Hartford Ar	7 40	7 55
West Hartford, Conn. PPB Ar	7 55	8 05

TABLE G — READ DOWN

	ESH	Dly
West Hartford, Conn. PPB Lv	8 10	8 05
Hartford Lv	8 25	↓
Windsor, Conn. Lv	↓	8 25
Bradley Airport, Conn. Lv	↓	8 35
Springfield, Mass. Ar	9 00	9 00
Springfield Lv	9 15	9 00
Holyoke Ar	9 30	9 15
Northampton Ar	9 45	9 30
Amherst Ar	10 10	9 50
Springfield Lv	10 15	9 05
Worcester Ar	11 10	10 20
Springfield Lv	9 15	9 05
Natick Ar	↓	10 55
BOSTON, MASS. PPB Ar	11 05	11 30

Deluxe air-conditioned buses are available for your group or organization's next trip to any destination, near or far. We will arrange for Red Sox, other sports or theatre tickets on request.

For a fast, no-obligation charter quote call 781-2930 or consult your local terminal.

TABLE C — READ DOWN

		FSu
UNIVERSITY OF MASS. PPB Lv		1 00
Amherst Center Lv		1 05
Northampton Lv		1 20
Holyoke Lv		1 35
SPRINGFIELD PPB Ar		1 55
SPRINGFIELD PPB Lv	•	2 15
Rodeway Inn (M.T. #6) Lv	•	2 22
Worcester (Gray Line Term.) Lv	•	3 15
Natick (Speen St. Term.) Lv	•	3 55
Westwood (Rte. 128 Station) Lv	•	4 10
Buzzards Bay PPB Ar	•	5 10
Buzzards Bay BZ Lv		*5 20*
Otis Air Force Base Ar		*5 30*
Falmouth Ar		*5 40*
Woods Hole, Mass. BZ Ar		*5 50*
Woods Hole, Mass. WMV Lv		*8 00*
Vineyard Haven WMV Ar		*9 45*
Buzzards Bay PPB Lv	•	5 10
Sagamore Ar	•	5 20
HYANNIS PPB Ar	•	5 45

TABLE D — READ DOWN

		FSu
HYANNIS PPB Lv	•	6 15
Sagamore Lv	•	6 50
Buzzards Bay PPB Ar	•	7 00
Vineyard Haven WMV Lv		*4 15*
Woods Hole, Mass. WMV Ar		*5 00*
Woods Hole, Mass. BZ Lv		*5 30*
Falmouth Lv		*5 40*
Otis Air Force Base Lv		*5 50*
Buzzards Bay BZ Ar		*6 00*
Buzzards Bay PPB Lv	•	7 00
Westwood (Rte. 128 Station) Ar	•	8 00
Natick (Speen St. Term.) Ar	•	8 15
Worcester (Gray Line Term.) Ar	•	8 45
Rodeway Inn (M.T. #6) Ar	•	9 37
SPRINGFIELD PPB Ar	•	9 45
SPRINGFIELD PPB Lv		10 00
Holyoke Ar		10 15
Northampton Ar		10 30
Amherst Center Ar		10 45
UNIVERSITY OF MASS. PPB Ar		10 50

TABLE E

DOWN ESH	DOWN ESSH		READ UP ESSH	READ UP ESH
5 40	° 7 15	Lv **BRADLEY AIRPORT, CONN.** PPB Ar	2 30	.....
6 15	° 7 50	Ar Springfield, Mass. Ar	2 05	.....
• 5 00	) 7 30	Lv **UNIVERSITY OF MASS.** ♦ Ar	3 10	•12 25
• 5 05	) 7 35	Lv Amherst Center ♦ Ar	3 05	•12 20
• 5 20	) 7 50	Lv **Northampton** ♦ Ar	2 45	•11 59
• 5 35	7 35	Lv Holyoke ♦ Ar	2 30	•11 45
• 5 55	7 55	Ar Springfield ♦ Lv	2 15	•11 30
• 6 15	8 15	Lv **SPRINGFIELD** ♦ Ar	2 05	•11 25
↓	8 22	Lv Rodeway Inn ♦ Ar	1 57	•11 17
• 8 10	9 55	Ar **BOSTON** (Trailways Term.) ♦ Ar	12 01	• 9 45
◇ 8 12	) 10 15	Lv **BOSTON** (Trailways Term.) ♦ Ar	) 11 10	◇ 9 40
> 8 40	) 10 40	Ar **LOGAN AIRPORT, MASS.** PPB Lv	) 10 45	> 9 15

Note: Buses stop at marked bus stops on the lower level in front of each terminal building at Logan Airport, both arriving and leaving.

♦—Service between Logan Airport and other Massachusetts points is restricted to passengers having a prior or subsequent movement by air, in Interstate or International Commerce.

TO LOGAN AIRPORT: Peter Pan Bus to Trailways Terminal, Boston. Gray Line bus departs from front of Seaman's Inn, next to Trailways Terminal at 10 minutes past the hour from 8 10 AM through 8 10 PM, daily, with the exception of 4 10 PM at which time no bus is operated. Only passengers already holding thru Peter Pan tickets from Springfield, or other Western Massachusetts points to Logan Airport will be accepted.

FROM LOGAN AIRPORT: Gray Line bus leaves at 10 minutes before each hour, beginning at 8 50 AM until 8 50 PM, daily, with the exception of 4 50 PM at which time no bus is operated. Bus stops at all marked bus stops on lower level. Thru Peter Pan tickets accepted; or pay Gray Line driver cash fare to Springfield. Allow 30 minutes to Trailways Terminal.

READ DOWN

TABLE 1-A		Dly	ESH	Dly	Dly	Dly	EsH	Dly	Dly	Dly	Dly	Dly	Dly	FSu■	Dly	EFSu	■	Dly	Dly	Dly	■	Dly	Dly	Dly	Dly
‡**UNIVERSITY OF MASS.** PPB	Lv	500			7 00		)7 30	8 00	9 00	1000	1100	12 01	1 00		2 00		*3 00	3 00	4 00	5 00	*6 20	7 35	8 35	9 50	11 00
***Amherst Center**	Lv	505			7 05		)7 35	8 05	9 05	1005	1105	12 05	1 05		2 05		*3 05	3 05	4 05	5 05	*6 25	7 40	8 40	9 55	11 05
†Hampshire College	Lv									1010		e1210						3 10						10 00	
Hadley (Middle St.)	Lv	510			7 12		)7 42	8 12	9 12	1015	1112	12 12	1 12		2 12		*3 12	3 12	4 12	5 12	*6 32	7 47	8 47	Via South Hadley	11 12
***Northampton**	Lv	515			7 20		)7 50	8 20	9 20	1020	1120	12 20	1 20		2 20		*3 20	3 20	4 20	5 20	*6 40	7 55	8 55		11 20
†Easthampton (*Merrigan's Phar.*)	Lv				7 28				9 28											5 28					
†Easthampton (*Louie's*)	Lv				7 30				9 30											5 30					
***Holyoke**	Lv	530			7 35		Via Interstate 91	8 35	9 35	1035	1135	12 35	1 35		2 35		*3 35	3 35	4 35	5 35	*6 55	8 10	9 05		*1130
Willimansett	Lv																					8 15			
Chicopee	Lv																					8 20			
***SPRINGFIELD, MASS.**	Ar	545			7 55			8 55	9 55	1055	1155	12 55	1 55		2 55		*3 55	3 55	4 55	5 55	*7 10	8 35	9 20	10 45	11 54
***SPRINGFIELD, MASS.**	Lv	5 45	6 45	7 15	8 15	8 15		9 15	10 15	11 15	1215	1 15	2 15	*2 15	3 15	3 15	*4 15	4 15	5 15	6 15	*7 30	9 05			
†**Rodeway Inn**	Lv		6 52		8 22		)8 22		10 22		1222			*2 22	3 22	3 22	*4 22		5 22		*7 37				
Springfield M.T. #6	Lv		6 54		8 24		)8 24		10 24		1224			*2 24	3 25	3 25	*5 24		5 24						
†Winchester Square	Lv	5 52		7 22		8 25		9 22		11 25		1 22	2 25					4 25		6 25		9 15			
Boston Rd.-Parker St.	Lv	6 00		7 30		8 33		9 30		11 33		1 30	2 33					4 33		6 33		9 23			
Ludlow M.T. #7	Lv	6 05						9 35				1 35								6 38					
Boston Rd.-Stony Hill	Lv			7 32		8 37				11 37			2 37					4 37				9 27			
†North Wilbraham	Lv			7 40		8 40				11 40			2 40					4 40				9 30			
***PALMER**	Lv			7 50		8 50				11 50			2 50					4 50			*7 50	9 40			
Palmer M.T. #8	Lv			7 53		8 53							2 53								*7 53	9 43			
†Brimfield	Lv									12 00								5 00							
Fiskdale	Lv									12 06								5 06							
Old Sturbridge Village	Lv									12 09								5 11							
†**Sturbridge**	Lv									12 11								5 13							
‡**Southbridge**	Lv									12 20								5 20							
Sturbridge/Charlton Plaza (*Rear*)	Lv			r813																					
Charlton	Lv									12 29								5 28							
Auburn	Lv									12 41								5 37							
***Worcester**	Ar					*9 30			11 10					*3 15		4 10						*10 20			
Millbury-Rte. 20	Ar									12 46															
Worcester-Rte. 20	Ar									12 49															
Shrewsbury-Rte. 20	Ar									1 05															
Westboro	Ar									1 09															
†**Framingham Center**	Ar									1 19								*6 06			*840	*1045			
Natick-Rte. 9	Ar									1 24								*6 14			*848				
***NATICK-Speen St. Term.**	Ar					*1015			11 50		*130	e2 40		*3 55	*430	4 50	*530		*6 30	*7 40		*10 55			
Wellesley-Rte. 9	Ar									1 27								*6 16			*850	*11 00			
†**Wellesley Hills**-Rte. 9	Ar									1 31								*6 19			*853	*11 03			
Newton Highlands-Rte. 9	Ar									1 37												11 08			
Chestnut Hill-Rte. 9	Ar									1 40												11 15			
Brookline	Ar									1 45												11 19			
Copley Square	Ar	7 32	8 22	9 12	9 52	10 37	)9 52	1102	12 17	1 52	1 52	3 02	4 12		4 52	5 12	*5 22	6 37	6 52	8 07	*9 22	11 27			
***BOSTON** (Park Sq.) PPB	Ar	7 35	8 25	9 15	9 55	10 40	)9 55	1105	12 20	1 55	1 55	3 05	4 15		4 55	5 15	*5 55	6 40	6 55	8 10	*9 25	11 30			
Route (Springfield–Boston)		Via Mass. Turnpike	Via Mass. Turnpike	Via Mass. Turnpike	Via Mass. Turnpike		Via Mass. Turnpike	Via Mass. Turnpike	Via Mass. Turnpike		Via Mass. Turnpike	Via Mass. Turnpike	Via Mass. Turnpike	Via Mass. Turnpike Thru Bus to Cape Cod	Via Mass. Turnpike	Via Mass. Turnpike	Via Mass. Turnpike	Via Mass. Tpke.	Via Mass. Turnpike	Via Mass. Turnpike Thru Bus to Logan Airport	Via Mass. Turnpike	Via Mass. Turnpike			

For Complete Service See Tables 6-A and 7-A

TABLE 2-A READ DOWN		ESH	ESH	Dly	ESH	Dly	Dly	Dly	Dly	Dly	Dly	Dly	Dly	Dly	Dly	Dly	Sun	Dly	Dly
***SOUTH HADLEY, MASS.** PPB	Lv			7 20		9 20		11 20		1 20		3 20		5 20		♦7 20	§ 8 00		10 20
†Westover AFB (Main Gate)	Lv											3 30							
Westover AFB (Dunkin Donuts)	Lv			7 32		9 32		11 32		1 32		3 32		5 32		♦7 32	§ 8 12		10 30
†Fairfield Inn	Lv			7 37		9 37		11 37		1 37		3 37		5 37		♦7 37	§ 8 17		10 35
†**Rodeway Inn**	Lv			7 45		9 45		11 45		1 45		3 45		5 45		♦7 45	§ 8 25		10 43
***Springfield**-Bus Terminal	Ar			7 55		9 55		11 55		1 55		3 55		5 55		♦7 55	§ 8 35		10 50
†**SHERATON INN**-Springfield West	Lv			R7 45		R9 45	R1045	R1145	R1245	R1 45	R2 45	R345	R4 45	R545				R 9 45	
†**Howard Johnson Motor Lodge**	Lv			R7 50		R9 50	R1050	R1150	R1250	R1 50	R2 50	R350	R4 50	R550				R 9 55	
***Springfield**-Bus Terminal	Ar			7 55		9 55	10 55	11 55	12 55	1 55	2 55	355	4 55	5 55				9 55	
‡**UNIVERSITY OF MASS.**	Lv	5 00		7 00	8 00	9 00	*1000	11 00	12 01	1 00	2 00	3 00	4 00	5 00	6 20	7 35		8 35	
***Amherst Center**	Lv	5 05		7 05	8 05	9 05	*1005	11 05	12 05	1 05	2 05	3 05	4 05	5 05	6 25	7 40		8 40	
*Northampton	Lv	5 15		7 20	8 20	9 20	*1020	11 20	12 20	1 20	2 20	3 20	4 20	5 20	6 40	7 55		8 55	
*Holyoke	Lv	5 30		7 35	8 35	9 35	*1035	11 35	12 35	1 35	2 35	3 35	4 35	5 35	6 55	8 10		9 05	
Holyoke-Holiday Inn	Lv			R7 40	R 8 40	R9 40		R1140	R1240	R1 40	R2 40	R340		R540					
***Springfield**-Bus Terminal	Ar	5 45		7 55	8 55	9 55	*1055	11 55	12 55	1 55	2 55	3 55	4 55	5 55	7 10	8 35		9 20	
Springfield-Holiday Inn	Lv	R605	R7 00	R7 55	R8 55	R9 55	R1055	R1155	R1255	R1 55	R2 55	R355	R4 55	R555	R 7 10	R 8 35		R 9 50	
***SPRINGFIELD**-Bus Terminal	Lv	*6 05	7 00	8 00	9 05	10 05	11 05	12 05	1 05	2 05	3 05	4 05	5 05	6 05	7 20	8 45		10 00	
†**Springfield**-Marriott-Baystate W. Hotel	Lv	6 10	7 05	8 05	9 10	10 10	11 10	12 10	1 10	2 10	3 10	4 10	5 10	6 10	7 25	8 50		10 05	
Agawam-Meadow Street	Ar				*9 15			*1215			*3 15		*5 15	*615				*10 10	
Agawam—Main St.-Rte. 57	Ar				9 20			12 20			3 20		5 20	6 20				10 15	
Riverside Park	Ar				9 25			12 25			3 25		5 25	6 25				10 20	
Rte. 159 & Mapleton Road	Ar				9 27			12 27			3 27		5 27	6 27				10 22	
Suffield Academy	Ar				9 30			12 30			3 30		5 30	6 30				10 25	
BRADLEY AIRPORT, CONN. PPB	Ar	*6 30	7 25	8 25	9 35	10 30	11 30	12 35	1 30	2 30	3 35	4 30	5 35	6 35	7 45	9 10		10 30	

TABLE 3-A DOWN		ESH	Dly	Dly	Dly	Dly	FSu	Dly	Dly	Dly	Dly
Boston, Mass. PPB	Lv	*8 15	9 15	10 15	1201	115	3 15	3 15	4 15	5 30	6 45
Natick	Lv	*8 45		10 40	1225			3 40		5 55	7 10
Springfield, Mass. PPB	Ar	*1000	1050	12 10	2 05	250	5 10	6 00	5 50	7 15	8 30
Springfield, Mass. BZ	Lv		1215	12 15		315		6 30	6 30		9 30
Lee	Ar			1 00		400		7 15	7 15		10 15
Lenox	Ar			1 10		410		7 25	7 25		10 25
Pittsfield, Mass.	Ar			1 25		425		7 40	7 40		10 40
Albany, N.Y. BZ	Ar		1 55			455		8 40	8 40		11 40
Springfield, Mass. TWI	Lv	10 10	1210	g1210	2 10	310	*510	6 10	6 10	7 20	*8 45
Hartford, Conn.	Ar	10 42	1242	g1242	2 42	342	*542	6 42	6 42	7 55	*9 17
Middletown, Conn.	Ar		1211								
New Haven, Conn. TWI	Ar		1252		3 32	432	*632	7 32	7 32		*1007

TABLE 3-B DOWN		ESH	Dly	Dly	Dly	Dly	Dly	FSu	Dly
New Haven, Conn. TWI	Lv		1040	1159	1 00	3 00	4 00	5 00	*7 00
Middletown, Conn.	Lv				1 35		4 35		
Hartford, Conn.	Lv	825	1130	1250	2 05	3 50	5 05	5 50	*7 50
Springfield, Mass. TWI	Ar	900	1204	1 24	2 39	4 24	5 39	6 24	*8 24
Albany, N.Y. BZ	Lv		1015		1 15		4 15		6 40
Pittsfield, Mass.	Lv		1030		1 45		4 45		7 35
Lenox	Lv		1040		1 55		4 55		7 45
Lee	Lv		1050		2 05		5 05		8 00
Springfield, Mass. BZ	Ar		1140		2 55		5 55		8 40
Springfield, Mass. PPB	Lv	9 15	1215	2 15	3 15	5 15	6 15	*730	9 05
Natick	Ar		1 30		4 30	6 30	7 40	[illegible]	10 55
Boston, Mass. PPB	Ar	1105	1 55	4 15	4 55	6 55	8 10	*925	11 30

See Page 3 for Explanation of Reference Marks.

TABLE 1-8 — READ DOWN

	ESH	Dly	ESH	Dly	ESH	Dly	Dly	Dly	Dly	Dly	Dly	Dly	Dly	Esa	Dly	Dly	Dly	Dly	Dly	Dly	ESH	Dly	Dly
*BOSTON (Park Sq.)—PPB	Lv																						
Copley Square	Lv																						
Brookline	Lv																						
Chestnut Hill-Rte. 9	Lv																						
Newton Highlands-Rte. 9	Lv																						
†Wellesley Hills-Rte. 9	Lv																						
Wellesley-Rte. 9	Lv																						
*NATICK-Speen St. Term.	Lv																						
Natick-Rte. 9	Lv																						
†Framingham Center	Lv																						
Westboro	Lv																						
Shrewsbury-Rte. 20	Lv																						
Worcester-Rte. 20	Lv																						
Millbury-Rte. 20	Lv																						
*Worcester	Lv																						
Auburn	Lv																						
Charlton	Lv																						
§Southbridge	Lv																						
†Sturbridge	Ar																						
Old Sturbridge Village	Ar																						
Fiskdale	Ar																						
†Brimfield	Ar																						
Palmer M.T. #8	Ar																						
*PALMER	Ar																						
†North Wilbraham	Ar																						
Boston Rd., Stony Hill	Ar																						
Ludlow M.T. #7	Ar																						
Boston Rd.-Parker St.	Ar																						
†Winchester Square	Ar																						
Springfield M.T. #6	Ar																						
†Rodeway Inn	Ar																						
*SPRINGFIELD, MASS.	Ar																						
*SPRINGFIELD, MASS.	Lv																						
*Holyoke	Ar																						
†Easthampton	Ar																						
*Northampton	Ar																						
Hadley (Middle St.)	Ar																						
†Hampshire College	Ar																						
*Amherst Center	Ar																						
♀UNIVERSITY OF MASS.	Ar																						

Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike — Via Interstate 91 — Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike — Via Mass. Turnpike

For Complete Service See Tables 6-8 and 7-8

TABLE 2-8 — READ DOWN

	ESH	ESH	Dly	ESH	Dly	Dly		Dly	Dly	Dly	Dly	Dly	Dly	Sun	Dly	Dly	Dly	Dly
§BRADLEY AIRPORT, CONN.—PPB	Lv																	
Suffield Academy	Lv																	
Rte. 159 & Mapleton Road	Lv																	
Riverside Park	Lv																	
Agawam—Main St.-Rte. 57	Lv																	
Agawam—Meadow Street																		
†Springfield-Marriott-Baystate W. Hotel	Ar																	
*SPRINGFIELD-Bus Terminal	Ar																	
Springfield-Holiday Inn	♀.. Ar																	
*Springfield-Bus Terminal	Lv																	
Holyoke-Holiday Inn	♀.. Lv																	
*Holyoke	Ar																	
Northampton (Colonial Hilton)	♀.. Ar																	
*Northampton	Ar																	
*Amherst Center	Ar																	
♀UNIVERSITY OF MASS.	Ar																	
*Springfield-Bus Terminal	♀.. Lv																	
†Howard Johnson Motor Lodge	♀.. Ar																	
†SHERATON INN-Springfield West	♀.. Ar																	
*Springfield-Bus Terminal	Lv																	
Rodeway Inn	Ar																	
Fairfield Inn	Ar																	
Westover AFB (Dunkin Donuts)	Ar																	
†Westover AFB (Main Gate)	Ar																	
*SOUTH HADLEY, MASS.—PPB	Ar																	

Via Halpin

The Company reserves the right to refuse passage or eject from the coach anyone intoxicated or using profane language. This time table is published for the convenience of the public and every care is taken to keep it accurate, but the company does not guarantee its correctness nor does it hold itself responsible for any errors, omissions, delay or connections.

Federal regulations prohibit smoking aboard buses except in a few designated rear seats of each bus. These seats are clearly marked with signs. Please seat yourself in this section if you wish to smoke during your trip. Only cigarette smoking is permitted.

NOTE: *Italics indicate service via additional or separate connection.*

r—Bus stops daily at 8 13 a.m. at rear of Sturbridge/Charlton Plaza on Mass. Pike.
t—Advance reservations suggested for departures from Natick Terminal.
R—Departs from these points only by reservation. Call Peter Pan Dispatcher at 781-2900, or your local agency.
①—Stops in Natick along Route 9, not at Natick Terminal.
♀—Will operate through these points to discharge passengers on request to bus driver.
(GWB)—George Washington Bridge Terminal.
(P.A.T.)—Port Authority Terminal.
(MT)—Massachusetts Turnpike Entrance.
§—Agency station to which baggage may be checked and to which prepaid and collect express may be shipped.
t—Agency station for tickets only.
♀—Station having drop-off service for prepaid express only.
*—Agency station to which baggage may be checked and to which prepaid, collect and C.O.D. express may be shipped.
* or Dly—Runs daily.
e or Fri—Fridays only.
§ or Sun—Sundays only.
‡ or SH—Sundays and Holidays only.
? or ESH—Daily except Sundays and Holidays.
• or FSu—Fridays and Sundays only.
) or EsH—Daily except Sat., Sun. and Hol.
- or SS—Saturday and Sunday only.
= or FSuH—Friday, Sunday and Holidays only.
^ or FSS—Friday, Saturday and Sunday only.
; or EFSu—Daily except Friday and Sunday.
: or ES—Daily except Saturday.
‡ or WD—Daily except Saturday & Sunday.

BCL—Baystate Commuter Lines.
BLI—The Blue Line.
BZ—Bonanza Bus Lines.
CCB—Cape Cod Bus Lines.
g or **GL**—Greyhound Lines, Inc.
MBC—Medeiros Bus Co., Inc.
PPB—Peter Pan Bus Lines.
P & B—Plymouth & Brockton Street Rwy.
PVTA—Pioneer Valley Transit Authority.
r or **TWI**—Trailways, Inc.
v or **VT**—Vermont Transit.
WMV—Woods Hole, Martha's Vineyard & Nantucket Steamship Authority.
B—Boston Bus. **P**—Palmer Bus.
E—Eastfield Mall Bus.
W—Worcester Bus.
■—Operates Monday, February 18 **instead of** Sunday, February 17.
AM—Light Face. **PM—Bold Face.**

TABLE 4-A READ DOWN

	ESH	ESH	Dly	Dly	Dly	Dly	WD	Sun	Dly
•SOUTH HADLEY, MASS.PPB Lv	7 20	9 20	11 20	1 20	3 20	5 20	47 20	$800	1020
rWestover AFB (Main Gate)... Lv	▼	▼	▼	▼	3 30	▼	▼	▼	▼
Westover AFB(Dunkin Donuts) Lv	7 32	9 32	11 32	1 32	3 32	5 32	47 32	$812	1032
tFairfield Inn..... Lv	7 37	9 37	11 37	1 37	3 37	5 37	47 37	$817	1035
tRodeway Inn..... Lv	7 45	9 45	11 45	1 45	3 45	5 45	47 45	$825	1043
•SPRINGFIELD, MASS...PPB Ar	7 55	9 55	11 55	1 55	3 55	5 55	47 55	$835	1050
•Springfield, Mass.....PPB Lv	8 15	10 15	12 15	2 15	4 15	6 15	9 05	|	|
•Natick..... Ar	9 30	11 50	1 30	•355	▼	7 40	10 55	|	|
•Boston, Mass.....PPB Ar	9 55	12 20	1 55	4 15	6 40	8 10	11 30	▼	▼
Springfield, Mass.....TWI Lv	8 10	10 10	10	g1210	2 10	4 10	6 10	•8 45	|
Hartford, Conn..... Ar	8 42	10 42	g1242	2 42	4 42	6 42	•9 17	|	|
New Haven, Conn..... Ar	9 52	11 32	|	3 32	▼	7 32	•1007	|	|
New York City (GWB)..... Ar	11 22	1 02	▼	5 17	7 00	9 02	•1137	|	|
New York City (PAT).....TWI Ar	11 52	1 32	g3 40	5 47	7 30	9 32	•1207	▼	▼

TABLE 4-B READ DOWN

	ESH	ESH	Dly	Dly	Dly	Dly	ExSa	Dly	Sun
New York City (PAT).....TWI Lv	|	|	g3 45	8 30	10000	1 00	3 00	•5 00	• 5 00
New York City (GWB)..... Lv	|	|	▼	9 00	10300	1 30	3 30	•5 30	• 5 30
New Haven, Conn..... Lv	|	|	g6 00	10 40	1159	3 00	▼	•7 00	• 7 00
Hartford, Conn..... Lv	|	|	g8 20	11 30	1250	3 50	5 50	•7 50	• 7 50
Springfield, Mass.....TWI Ar	▼	▼	g8 52	12 04	1 24	4 24	6 24	•8 24	• 8 24
•Boston, Mass.....PPB Lv	|	|	g8 15	10 15	1201	2 15	4 15	6 45	6 45
•Natick..... Lv	|	|	g8 40	10 40	1225	2 40	▼	7 10	7 10
•Springfield, Mass.....PPB Ar	▼	▼	g9 50	12 10	2 05	4 05	5 50	8 30	8 30
•SPRINGFIELD, MASS.....PPB Lv	6 45	8 30	10 30	12 30	2 30	4 30	6 30	9 00	8 45
tRodeway Inn..... Ar	•635	•840	•1040	•1240	•240	•440	•640	10 43	|
tFairfield Inn..... Ar	•703	•848	•1048	•1248	•248	•448	•648	10 35	|
Westover AFB (Dunkin Donuts)... Ar	7 07	8 52	10 52	12 52	2 52	4 52	6 52	▲	Via Holy-oke
tWestover AFB (Main Gate)..... Ar	•712	•857	•1057	•1257	•257	•457	•657	10 30	|
•SOUTH HADLEY, MASS....PPB Ar	7 20	9 05	11 05	1 05	3 05	5 05	7 05	10 20	9 20

TABLE 5-A READ DOWN

	ESH	Dly	EssH	Dly	Dly
tWestfield State College.....PPB Lv	7 20	11 30	2 20	5 20	8 15
•Westfield-Clinton Pharmacy..... Lv	7 25	11 35	2 25	5 25	8 20
West Springfield..... Lv	7 35	11 45	2 35	5 35	8 30
•Springfield, Mass.....PPB Ar	7 45	11 55	2 45	5 45	8 40
•Springfield, Mass.....PPB Lv	8 15	12 15	3 15	6 15	9 05
•Natick..... Ar	▼	1 30	4 30	7 40	10 55
•Boston, Mass.....PPB Ar	9 55	1 55	4 55	8 10	11 30
•Springfield, Mass.....PPB Lv	8 15	12 15	3 15	6 15	9 05
•Worcester, Mass.....PPB Ar	9 30	2 00	4 10	7 30	10 20

TABLE 5-B READ DOWN

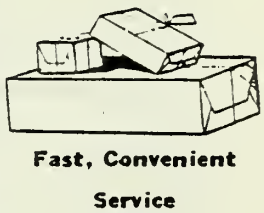
	ESH	Dly	EssH	Dly	Dly
•Worcester, Mass.....PPB Lv	|	|	11 15	2 20	4 15
•Springfield, Mass.....PPB Ar	▼	▼	1 15	4 10	6 00
•Boston, Mass.....PPB Lv	|	9 15	10 15	2 15	5 30
•Natick..... Lv	|	▼	10 40	2 40	5 55
•Springfield, Mass.....PPB Ar	▼	10 50	1 15	4 05	7 15
•Springfield, Mass.....PPB Lv	6 45	11 00	1 30	4 30	7 30
West Springfield..... Ar	6 55	11 10	1 40	4 40	7 40
•Westfield-Clinton Pharmacy..... Ar	7 05	11 20	1 50	4 50	7 50
•Westfield State College.....PPB Ar	7 10	11 25	1 55	4 55	7 55

TABLE 6-A READ DOWN

	Dly	ESH PVTA	ESH PVTA	SH	Dly PVTA	ESH PVTA	SH	Dly PVTA	ESH PVTA	ESH PVTA	Dly	Dly PVTA	ESH PVTA	Dly PVTA	ESH PVTA	Dly PVTA	FSu	ESH PVTA	Dly PVTA
	B	P	P	B	W	P	B	B	W	E	B	B	E	B	E	W	B	E	B
•SPRINGFIELD (Bus Term.) Lv	5 45	6 00	7 15	‡715	8 15	•9 15	‡915	11 15	12 15	1 00	1 15	2 15	3 15	4 15	5 15	6 15	•7 30	8 45	9 05
Main St. & Vernon St..... Lv	|	6 02	7 17	|	8 17	9 17	|	11 17	12 17	1 02	▼	2 17	3 17	4 17	5 17	6 17	|	8 47	9 07
Main St. & State St..... Lv	▼	6 04	7 19	▼	8 19	9 19	▼	11 19	12 19	1 04	▼	2 19	3 19	4 19	5 19	6 19	|	8 49	9 09
State St. & Chestnut St..... Lv	5 50	6 06	7 21	‡720	8 21	9 21	‡920	11 21	12 21	1 06	1 21	2 21	3 21	4 21	5 21	6 21	|	8 51	9 11
tWinchester Square..... Lv	5 52	6 10	7 25	‡724	8 25	9 25	‡924	11 25	12 25	1 10	1 25	2 25	3 25	4 25	5 25	6 25	|	8 55	9 15
Boston Rd. & Gresham St.. Lv	6 00	6 15	7 30	‡728	8 30	9 30	‡928	11 30	12 30	1 15	1 30	2 30	3 30	4 30	5 30	6 30	|	9 00	9 20
Boston Rd. & Parker St...... Ar	6 05	6 18	7 33	‡730	8 33	9 33	‡930	11 33	12 33	1 18	1 33	2 33	3 33	4 33	5 33	6 33	|	9 03	9 23
Eastfield Mall (Boston Rd.) Ar	|	6 19	7 34	|	8 34	9 34	|	11 34	12 34	1 19	|	2 34	3 34	4 34	5 34	6 34	|	9 04	9 24
Eastfield Mall (Peerless)... Ar	|	•620	•735	|	•835	•935	|	•1135	•1235	1 20	|	•235	3 35	•435	5 35	•635	|	9 05	9 25
Boston Rd. & Stony Hill..... Ar	|	6 22	7 37	|	8 37	9 37	|	11 37	12 37	|	|	2 37	|	4 37	|	6 37	|	|	9 27
tNorth Wilbraham..... Ar	|	6 25	7 40	|	8 40	9 40	|	11 40	12 40	|	|	2 40	|	4 40	|	6 40	|	|	9 30
State Police Barracks..... Ar	|	6 30	7 45	|	8 45	9 45	|	11 45	12 45	|	|	2 45	|	4 45	|	6 45	|	|	9 35
•PALMER..... Ar	▼	6 45	7 50	▼	8 50	9 50	▼	11 50	9 12	50	▼	2 50	▼	4 50	▼	6 50	•7 50	▼	9 40

TABLE 6-B READ DOWN

	ESH PVTA	ESH PVTA	ESH PVTA	Dly PVTA	Dly PVTA	Dly	ESH PVTA	ESH PVTA	ESH PVTA	SH	ESH PVTA	Dly PVTA	Dly	Dly PVTA	ESH PVTA	ESH PVTA	Dly		
	P	P	P	B	B	B	E	W	E	B	E	B	B	W	E	B	B		
•PALMER..... Lv	•7 00	•8 00	•1000	|	12 35	1 25	|	•3 20	|	|	|	5 20	|	8 15	|	•1030	1 45	----	----
State Police Barracks..... Lv	•7 05	•8 05	•1005	|	12 40	|	|	•3 35	|	|	|	5 25	|	8 20	|	•1035	1 49	----	----
tNorth Wilbraham..... Lv	•7 10	•8 10	•1010	|	12 45	|	|	•3 40	|	|	|	5 30	|	8 25	|	•1040	1 53	----	----
Boston Rd. & Stony Hill..... Lv	•7 13	•8 13	•1013	|	12 48	|	|	•3 43	|	|	|	5 33	|	8 28	|	•1043	1 58	----	----
Eastfield Mall (Peerless)... Ar	•7 15	•8 15	•1015	|	•1250	|	•1 40	•3 45	•4 45	|	|	5 35	|	8 30	•9 15	|	|	----	----
Eastfield Mall (Boston Rd.) Lv	•7 16	•8 16	•1016	▼	12 51	|	•1 41	•3 46	•4 46	|	|	5 36	5 36	8 31	•9 16	•1046	1 59	----	----
Boston Rd. & Parker St...... Lv	•7 20	•8 20	•1020	11 45	12 55	|	•1 45	•3 50	•4 50	•4 45	•5 40	5 40	6 55	8 35	•9 20	1050	2 00	----	----
Boston Rd. & Gresham St.. Ar	•7 25	•8 25	•1025	11 50	1 00	|	•1 50	•3 55	•4 55	•4 50	•5 45	5 45	7 00	8 40	•9 25	1055	2 03	----	----
tWinchester Square..... Ar	•7 30	•8 30	•1030	11 55	1 05	|	•1 55	•4 00	•5 00	•4 55	•5 50	5 50	7 05	8 45	•9 30	1100	2 08	----	----
State Street & Chestnut.... Ar	•7 34	•8 34	•1034	11 59	1 09	|	•1 59	•4 04	•5 02	•4 57	•5 52	5 52	7 09	8 49	•9 34	1104	2 13	----	----
Main St. & State St..... Ar	•7 36	•8 36	•1036	•1202	•1 11	|	•2 01	•4 06	•5 04	|	•5 54	5 54	|	8 51	•9 36	1106	▼	----	----
Main St. & Vernon St..... Ar	•7 38	•8 38	•1038	•1204	•1 13	▼	•2 03	•4 08	•5 08	▼	•5 56	5 56	▼	8 53	•9 38	1108	▼	----	----
•SPRINGFIELD (Bus Term.) Ar	•7 40	•8 40	•1040	12 10	1 15	2 05	•2 05	•4 10	•5 10	•5 10	•6 00	6 00	7 15	8 55	•9 40	1110	2 15	----	----



Fast, Convenient Service Ship Your Personal or Commercial Packages

Check with your Peter Pan Agent For Complete Information.

PETER PAN ROUTE BETWEEN DOWNTOWN SPRINGFIELD AND EASTFIELD MALL—NORTH WILBRAHAM—PALMER

LEAVE SPRINGFIELD- All trips designated PVTA shown on Table 6-A will operate via Main Street and State Street Monday thru Saturday and will make stops at all PVTA Bus Stops to and from Eastfield Mall. On Sundays and Holidays and all other trips not designated PVTA will operate over Dwight Street between Liberty Street and State Street.

ARRIVING SPRINGFIELD—All trips shown on Table 6-B designated PVTA will operate over Main Street between State Street and the Springfield Bus Terminal on Monday thru Saturday. On Sundays and Holidays and all other schedules not designated PVTA will operate over Chestnut Street between State and Liberty Streets.

Leaves From	Leaving Time	Return BY	Round-Trip Fare Including Ski Lift Ticket Adult	Child
Springfield (Bus Terminal)	6 00 a.m.	8 00 p.m.	$27.00	$20.75
South Hadley (Bus Stop by Town Hall)	6 30 a.m.	7 40 p.m.	26.00	20.25
Northampton (Green Hall-Smith College)	6 50 a.m.	7 30 p.m.	26.00	20.25
Amherst Center (Peter Pan)	7 15 a.m.	7 10 p.m.	25.00	19.75
U. Mass. (Campus Center Cir.)	7 25 a.m.	7 00 p.m.	25.00	19.75

Tickets must be purchased at least one day in advance—Service subject to cancellation depending on ski conditions.

See Page 3 for Explanation of Reference Marks.

TABLE 7-A

READ DOWN

			Dly B	Dly B	Fri	ESH	FSu ■	EFSu B	Dly B	Dly B
University of Mass.	PPB	Lv	7 00	9 00	|	11 00	1 00	2 00	5 00	7 35
Amherst		Lv	7 05	9 05	|	11 05	1 05	2 05	5 05	7 40
Northampton		Lv	7 20	9 20	|	11 20	1 20	2 20	5 20	7 55
Holyoke		Lv	7 35	9 35	|	11 35	1 35	2 35	5 35	8 10
Springfield	PPB	Ar	7 55	9 55	↓	11 55	1 55	2 55	5 55	8 35
***SPRINGFIELD**	PPB	Lv	8 15	10 15	e9 15	°1215	°215	α3 15	6 15	9 05
†Rodeway Inn (M.T. #6)	For complete	Lv	↓	10 22	|	↓	°222	α3 22	↓	↓
Parker St.-Boston Rd.	service see	Lv	8 33	|	|	°1233	|	|	6 33	9 23
†North Wilbraham	Table 6A	Lv	8 40	|	|	°1240	|	|	6 40	9 30
***Palmer**		Ar	8 50	↓	↓	°1250	↓	↓	6 50	9 40
Old Sturbridge Village		Ar	|	|	|	|	|	|	|	|
†Sturbridge		Ar	|	|	|	|	|	|	|	|
§Southbridge		Ar	|	|	|	|	|	|	|	|
Auburn		Ar	|	|	|	|	|	|	|	|
§**West Warren**		Ar	|	|	|	°1 07	|	|	|	|
§Warren		Ar	|	|	|	°1 12	|	|	|	|
§West Brookfield		Ar	|	|	|	°1 17	|	|	|	|
‡**Brookfield**		Ar	|	|	e1045	°1 22	|	|	|	|
‡East Brookfield		Ar	|	|	e1055	°1 27	|	|	|	|
‡Spencer		Ar	|	|	e1100	°1 32	|	|	|	|
Leicester		Ar	|	|	e1107	°1 40	|	|	|	|
***WORCESTER** (Trwys. Term.)	PPB	Ar	9 30	11 10	e1125	°2 00	°315	α4 10	7 30	10 20
Worcester	TWI	Lv	|	|	|	2 00	5 30	5 30	9 35	|
Leominster		Ar	|	|	|	2 38	6 05	6 05	↓	|
Fitchburg		Ar	|	|	|	2 50	6 15	6 15	|	|
Ayer		Ar	|	|	|	3 15	6 40	6 40	|	|
Lowell		Ar	|	|	|	3 40	7 05	7 05	1025	|
Lawrence		Ar	|	|	|	4 00	7 25	7 25	↓	|
Haverhill	TWI	Ar	↓	↓	↓	4 20	7 45	7 45	|	↓

Via Mass. Turnpike | Via Mass. Turnpike | Via Amherst—Route 9 | Via Mass. Turnpike | Via Mass. Turnpike | Via Mass. Turnpike | Via Mass. Turnpike

TABLE 7-B

READ DOWN

			Dly B	ESH	Dly B	Dly	FSu ■	ESH B
Haverhill	TWI	Lv	6 35	|	|	5 15	|	|
Lawrence		Lv	6 50	↓	|	5 30	|	|
Lowell		Lv	6 10	11 00	|	5 50	|	|
Ayer		Lv	6 35	|	|	6 15	|	|
Fitchburg		Lv	7 00	|	|	6 31	|	|
Leominster		Lv	7 12	|	|	6 40	|	|
Worcester	TWI	Ar	7 50	11 45	↓	7 30	↓	↓
***WORCESTER** (Trwys. Term.)	PPB	Lv	11 15	°2 20	4 15	7 40	• 8 45	°9 50
Leicester		Lv	|	°2 35	|	|	|	|
‡Spencer		Lv	|	°2 43	|	|	|	|
‡East Brookfield		Lv	|	°2 48	|	|	|	|
‡**Brookfield**		Lv	|	°2 53	|	|	|	|
§West Brookfield		Lv	|	°3 03	|	|	|	|
§Warren		Lv	|	°3 08	|	|	|	|
§**West Warren**		Lv	|	°3 08	↓	|	|	|
Auburn		Lv	11 47	|	4 25	|	|	|
§Southbridge		Lv	12 04	|	4 44	|	|	|
†Sturbridge		Lv	12 12	|	4 53	|	|	°10 10
Old Sturbridge Village		Lv	12 14	↓	4 55	|	|	↓
***Palmer**		Ar	12 35	°3 20	5 20	8 15	|	°10 30
†North Wilbraham	For complete	Ar	12 45	°3 40	5 30	8 25	|	°10 40
Parker St.-Boston Rd.	service see	Ar	12 50	°3 50	5 40	8 35	|	°10 50
†Rodeway Inn (M.T. #6)	Table 6B	Ar	↓	↓	↓	↓	°• 8 37	↓
***SPRINGFIELD**	PPB	Ar	1 15	°4 10	6 00	8 55	• 9 45	°11 10
Springfield	PPB	Lv	1 30	4 30	6 15	9 00	10 00	11 30
Holyoke		Ar	1 45	4 45	6 30	9 15	10 15	11 45
Northampton		Ar	2 00	5 00	6 45	9 30	10 30	11 59
Amherst		Ar	2 20	5 20	7 05	9 55	10 45	12 20
University of Mass.	PPB	Ar	2 25	5 25	7 10	9 50	10 50	12 25

Via Mass. Turnpike | Via Mass. Turnpike | Via Mass. Turnpike Thru Bus from Cape Cod | Via Mass. Turnpike

AMHERST—WARE—BOSTON

TABLE 9

			DOWN Fri Note 1
*Springfield, Mass.	PPB	Lv	9 15
*Holyoke		Lv	9 30
*Northampton		Lv	9 45
*Amherst Center, Mass.		Ar	10 06
‡**University of Mass.**		Lv	e 10 00
***Amherst Center**		Lv	e 10 06
Belchertown		Lv	e 10 20
Ware		Lv	e 10 34
§West Brookfield		Lv	e 10 45
‡Brookfield		Lv	e 10 50
‡East Brookfield		Lv	e 10 55
‡Spencer		Lv	e 11 00
Leicester		Lv	e 11 07
***Worcester**		Ar	e 11 25
Westboro		Ar	e 11 44
†**Framingham Center**		Ar	e 11 54
Natick—Route 9		Ar	e 12 02
†**Wellesley Hills**		Ar	e 12 07
Newton Highlands		Ar	e 12 11
Brookline		Ar	e 12 20
***BOSTON** (Park Sq.)	PPB	Ar	e 12 30

Note 1—Will **not** operate Friday, December 28, January 4, 11, 18 & 25.

IT'S FUN TO BE TOGETHER

Keep Your Group Together
Your Party Starts When The Bus Starts
FOR WHATEVER YOU PLAN
CALL THE MAN —
AT PETER PAN

FROM DEERFIELD

TABLE 8-A

READ DOWN

			Fri Note 1	FSu Note 1 & 2	Sun Note 2
†**DEERFIELD, MASS.** (Inn)	PPB	Lv	e 3 30	• 5 50	§ 9 45
†South Deerfield (Frontier Phar.)		Lv	e 3 35	• 5 55	§ 9 53
Sunderland		Lv	e 3 41	• 6 00	↓
Amherst		Lv	e 4 00	• 6 20	|
*Northampton		Ar	e 4 20	• 6 40	|
*Holyoke		Ar	e 4 35	• 6 55	↓
***SPRINGFIELD**		Ar	e 4 55	• 7 10	§10 40
*Springfield		Lv	5 15	7 30	|
*Natick		Ar	6 30	⊙	|
***BOSTON, MASS.**		Ar	6 55	9 25	↓
*Springfield, Mass.		Lv	5 05	7 20	|
§**BRADLEY AIRPORT, CONN.**	PPB	Ar	5 35	7 45	|
Springfield, Mass.	TWI	Lv	5 10	§ 7 40	|
Hartford, Conn.		Ar	5 42	§ 8 12	|
New Haven, Conn.		Ar	6 32	↓	|
New York, N.Y. (GWB)		Ar	8 02	|	|
NEW YORK, N.Y. (PAT)	TWI	Ar	8 32	§11 00	↓

TO DEERFIELD

TABLE 8-B

READ DOWN

			Fri Note 1	FSu Note 1 & 2	Sun Note 2
NEW YORK, N.Y. (PAT)	TWI	Lv	10 00	1 00	• 5 00
New York, N.Y. (GWB)		Lv	10 30	1 30	• 5 30
New Haven, Conn.		Lv	11 59	3 00	• 7 00
Hartford, Conn.		Lv	12 50	3 50	↓
Springfield, Mass.	TWI	Ar	1 24	4 24	• 8 15
§**BRADLEY AIRPORT, CONN.**	PPB	Lv	1 45	3 45	8 05
*Springfield, Mass.		Ar	2 10	4 10	8 30
***BOSTON, MASS.**		Lv	12 01	2 15	6 45
*Natick		Lv	L12 25	L 2 40	L 7 10
*Springfield		Ar	2 05	4 05	8 30
***SPRINGFIELD**		Lv	e 2 15	• 4 30	§ 8 45
*Holyoke		Lv	e 2 30	• 4 45	§ 9 00
*Northampton		Lv	e 2 45	• 5 00	↓
Amherst		Ar	|	• 5 25	§ 9 25
Sunderland		Ar	↓	• 5 35	§ 9 35
†South Deerfield (Frontier Phar.)		Ar	e3 05	• 5 40	§ 9 40
†**DEERFIELD, MASS.** (Inn)	PPB	Ar	e 3 15	• 5 45	§ 9 45

Special buses depart from Deerfield on dates when Deerfield Academy vacations begin and return on dates when Deerfield Academy vacations end. Times are arranged according to schedule and will be announced.

Note 1—Will **not** operate on Friday, December 21 & 28, Jan. 4, Feb. 8 & March 14.

Note 2—Will **not** operate Sunday December 23 & 30, Jan. 6, Feb. 10 & March 16. **Will operate** on Monday January 7 & February 11.

PETER PAN BUS LINES
1776 Main St.
Springfield, Mass. 01103

PLEASE RUSH THE FOLLOWING
Quantity ..... Toy Bus at $3.50 ea. $.....
Quantity ..... Tee Shirt at $4.00 ea. $.....
.. Ladies
.. Mens .. Small .. Medium .. Large
Total Enclosed $.....

Name .....
Street .....
City ..... State .... Zip .....

See Page 3 for Explanation of Reference Marks.

Exhibit 21, in 33 pages is a set of Route Descriptions for Peter Pan Bus Lines. Each page lists the itinerary of streets and highways for one of the route variations which make up the Peter Pan public timetable. These route descriptions are arranged as follows:

Route Numbers	Market Served
11- 25	Springfield - Boston
28	Boston - Logan Airport
29	Amherst - Boston (Express)
31 - 35	Springfield - Amherst
41	Springfield - South Hadley
51 - 52	Springfield - Bradley Field
53 - 54	Springfield - West Hartford
61	Springfield - Westfield
71	Springfield - Palmer
72	Springfield - Eastfield Mall
81 - 82	Springfield - Worcester
91	Springfield - Cape Cod

Exhibit 22 is a set of bus assignments covering the operation of the Peter Pan public timetable. Coverage of all first sections in the regular Monday through Friday Peter Pan timetable requires 16 of the 49 buses in the Peter Pan fleet. Three additional buses are required to operate the weekend service to Cape Cod and to Deerfield. As shown in the bus assignments, operation of the Peter Pan public timetable is extremely well thought out, providing high levels of bus utilization with almost no empty or "deadhead" bus miles for positioning purposes.

Peter Pan bases three buses and four operators in Amherst. These buses, designated by the letter "M" in the bus assignments, operate trips which originate and terminate in Amherst, thereby eliminating the need to run empty to and from the Springfield garage at the beginning and end of the day. When necessary for maintenance, as these buses pass through the Springfield Bus Terminal they can be

Peter Pan Bus Lines
Route Description

Route # 11 Boston- Springfield
via Rodeway Inn

INBOUND operates 9:15am, 1:15pm 4:15pm	OUTBOUND operates 6:45am, 8:15am
Trailways Terminal, Boston	Springfield Terminal
Eliot Street through Park Sq.	Liberty Street
St. James Avenue	Dwight Street
Mass Pike #22 to #6	I-291 to Rodeway Inn
Across I-291 to Rodeway Inn	Across I-291 to Mass Pike #6
I-291 to Chestnut Street	Mass Pike #6 to #22
Chestnut Street	Stuart Street
Liberty Street	Carver Street
Main Street	Eliot Street
Springfield Terminal	Trailways Terminal, Boston

Peter Pan Bus Lines
Route Description

Route # 12 Boston-Springfield
via Natick and Rodeway Inn

INBOUND
operates 8:15am, 2:15pm
5:30pm, 6:45pm, 9:45pm

Trailways Terminal, Boston
Eliot Street through Park Sq.
St. James Avenue
Mass Pike #22 to #13
Speen St. Trailways Terminal
Mass Pike #13 to #6
Across I-291 to Rodeway Inn
I-291 to Chestnut St.
Chestnut Street
Liberty Street
Main Street
Springfield Terminal

Note: 9:45pm bus originates at Logan Airport. See Route #24 for complete description

OUTBOUND
operates 12:15pm, 3:15pm
4:15pm, 5:15pm

Springfield Terminal
Liberty Street
Dwight Street
I-291 to Rodeway Inn
Across I-291 to Mass Pike
Mass Pike #6 to #13
Speen Street Trailways Terminal
Mass Pike #13 to #22
Stuart Street
Carver Street
Eliot Street
Trailways Terminal, Boston

NOTE: 4:15pm operates Friday and Sunday only. See Route 17 3:15 Outbound

Note that there are two 5:30 p.m. trips from Boston to Springfield, one via Route 12 and the other via Route 13.

Peter Pan Bus Lines
Route Description

Route #13 Boston-Springfield
via Boston Road, Ludlow

INBOUND
operates 3:15pm, 5:30pm

Trailways Terminal, Boston
Eliot Street through Park Sq.
St. James Avenue
Mass Pike #22 to #7
Route 21 (through Indian Orchard to Parker St)
Route 20 (Boston Road becomes State Street)
Chestnut Street
Liberty Street
Main Street
Springfield Terminal

OUTBOUND
operates 5:45am, 9:15am

Springfield Terminal
Liberty Street
Dwight Street
State Street (Route 20)
Boston Road (Route 20)
Parker Street (Route 21)
follow Rt. 21 through Indian Orchard to the Ludlow Bridge, left on far side of Bridge to Mass Pike.
Mass Pike #7 to #22
Stuart Street
Carver Street
Eliot Street
Trailways Terminal, Boston

Note that there are two 5:30 p.m. trips from Boston to Springfield, one via Route 12 and the other via Route 13.

Peter Pan Bus Lines
Route Description

Route # 14 Boston-Springfield
via Boston Road, Ludlow & Natick

INBOUND
operates 10:15am

Trailways Terminal, Boston
Eliot Street through Park Sq.
St. James Avenue
Mass Pike #22 to #13
Speen Street Trailways Terminal
Mass Pike #13 to #7
Route 21 (through Indian Orchard to Parker St.)
Route 20 (Boston Road becomes State Street)
Chestnut Street
Liberty Street
Main Street
Springfield Terminal

OUTBOUND
operates 1:15pm, 6:15pm

Springfield Terminal
Liberty Street
Dwight Street
State Street (Route 20)
Boston Road (Route 20)
Parker Street (Route 21)
follow Rt. 21 through Indian Orchard to the Ludlow Bridge, left on far side of Bridge to Mass Pike
Mass Pike #7 to #13
Speen Street Trailways Terminal
Mass Pike #13 to #22
Stuart Street
Carver Street
Eliot Street
Trailways Terminal, Boston

Peter Pan Bus Lines
Route Description

Route # 15 Boston-Springfield
via Boston Road, Palmer, Sturbridge

INBOUND

OUTBOUND
operates 7:15am

Springfield Terminal
Liberty Street
Dwight Street
State Street (ROUTE 20)
Boston Road (Route 20)
Route 20,to Palmer
Main Street
Central Street
Route 20
Route 32
Mass Pike #8 to #22
Stuart Street
Carver Street
Eliot Street
Trailways Terminal, Boston

Peter Pan Bus Lines
Route Description

Route # 16 Boston-Springfield
via Palmer Local, Worcester, Natick

INBOUND

OUTBOUND
operates 8:15am

Springfield Terminal
Liberty Street
Main Street
State Street (Route 20)
Boston Road (Route 20)
Route 20 to Palmer
Main Street
Central Street
Route 20
Route 32
Mass Pike #8 to #10
I-290 to Kelly Sq.
Madison Street Trailways Terminal
I-290
Route 122
Mass Pike #11 to #13
Speen Street Trailways Terminal
Mass Pike #13 to #22
Stuart Street
Carver Street
Eliot Street
Trailways Terminal, Boston

Peter Pan Bus Lines
Route Description

Route # 17 Boston-Springfield
via Rodeway, Worcester, Natick

INBOUND

OUTBOUND
operates 10:15am, 3:15pm (EFSu)

Springfield Terminal
Liberty Street
Dwight Street
I-291 to Rodeway Inn
Across I-291 to Mass Pike
Mass Pike #6 to #10
I-290 to Kelly Square
Madison Street Trailways Terminal
I-290
Route 122
Mass Pike #11 to #13
Speen Street Trailways Terminal
Mass Pike #13 to #22
Stuart Street
Carver Street
Eliot Street
Trailways Terminal, Boston

NOTE: 3:15pm operates daily except Friday and Sunday. See Route 12, 4:15pm Outbound

Peter Pan Bus Lines
Route Description

Route # 18 Boston-Springfield
LOCAL

INBOUND operates 11:59pm	OUTBOUND operates 11:15am
Trailways Terminal, Boston	Springfield Terminal
Eliot Street through Park Sq.	Liberty Street
St. James Street	Main Street
Huntington Ave. (Route 9)	State Street (Route 20)
Route 9 to Route 20	Boston Road (Route 20)
* Route 20 to Palmer	Route 20 to Palmer
Central Street Term., Palmer	Main Street
Main Street	Central Street Terminal, Palmer
Route 20 to Springfield	Route 20 to Sturbridge
Boston Road (Route 20)	Route 131 to Southbridge
State Street (Route 20)	Route 131 to Sturbridge
Main Street	Route 20 to Route 9
Springfield Terminal	Route 9 to Boston
	Huntington Avenue
	Stuart Street
	Carver Street
	Eliot Street
	Trailways Terminal, Boston

* If requested, the bus will operate to Southbridge via Route 131

Peter Pan Bus Lines
Route Description

Route 19 Boston-Springfield
via Palmer Local

INBOUND

OUTBOUND
operates 2:15pm

Springfield Terminal
Liberty Street
Main Street
State Street (Route 20)
Boston Road (Route 20)
Route 20 to Palmer
Main Street
Central Street Terminal, Palmer
Route 20
Route 32 to Mass Pike
Mass Pike #8 to #22
Stuart Street
Carver Street
Eliot Street
Trailways Terminal, Boston

Peter Pan Bus Lines
Route Description

Route # 20 Boston-Springfield
via Worcester Local, Framingham, Natick & Wellesley

INBOUND OUTBOUND
operates 3:15pm

Trailways Terminal, Boston
Eliot Street through Park Sq.
St. James Avenue
Huntington Avenue (Route 9)
Route 9 to I-290
I-290
Vernon Street
Madison Street Trailways Terminal
Vernon Street
I-290
* Route 20 to Palmer
Central Street
Main Street
Route 20
Boston Road (route 20)
State Street (route 20)
Main Street
Springfield Terminal

* Bus will operate to Southbridge via Route 131 if requested

Peter Pan Bus Lines
Route Description

Route # 21 Boston-Springfield
via Auburn Local, Framingham, Natick
& Wellesley

INBOUND	OUTBOUND operates 4:15pm
	Springfield Terminal
	Liberty Street
	Main Street
	State Street (route 20)
	Boston Road (route 20)
	Route 20 to Palmer
	Main Street
	Central Street Terminal, Palmer
	Route 20 to Auburn
	Mass Pike #10 to #12
	Route 9 to Wellesley Hills
Route 16 & 128; Mass Pike #15 to #22	
	Stuart Street
	Carver Street
	Eliot Street
	Trailways Terminal, Boston

Peter Pan Bus Lines
Route Description

Route # 22 Boston-Springfield
via Palmer Local, Worcester, Natick Local

INBOUND

OUTBOUND
operates 9:05pm

Springfield Terminal
Liberty Street
Main Street
State Street (Route 20)
Boston Road (Route 20)
Route 20 to Palmer
Main Street
Central Street Terminal, Palmer
Route 20
Route 32 to Mass Pike
Mass Pike #8 to #10
I-290
Vernon Street
Madison Street Trailways Terminal
Vernon Street
I-290
Route 9
Speen Street Trailways Terminal
Route 9 to Boston
Huntington Avenue (Route 9)
Stuart Street
Carver Street
Eliot Street
Trailways Terminal, Boston

Peter Pan Bus Lines
Route Description

Route # 23 Boston-Springfield
via Framinghan, Worcester Local

INBOUND OUTBOUND
operates 10:15am

Trailways Terminal, Boston
Eliot Street through Park Sq.
St. James Avenue
Mass Pike #22 to #15 then Routes 128 and 16 to Route 9
Route 9 to Worcester
I-290
Vernon Street
Madison Street Trailways Terminal
Vernon Street
I-290 to Route 20
Route 20 to
Route 131
* Route 20 to Palmer
Central Street Term., Palmer
Main Street
Route 20 to Springfield
Boston Road (Route 20)
State Street (Route 20)
Main Street
Springfield Terminal

* Operates into Old Sturbridge Village

Peter Pan Bus Lines
Route Description

Route # 24 Boston-Springfield
via Palmer & Natick

INBOUND OUTBOUND
operates 12:01pm, 7:45pm

Trailways Terminal, Boston
Eliot Street Through Park Sq.
St. James Avenue
Mass Pike #22 to #13
Speen Street Trailways Terminal
Mass Pike #13 to #8
Route 32 to Route 20
Central Street Term., Palmer
Main Street
Route 20 & 32 to Mass Pike
Mass Pike #8 to #6
Across I-291to Rodeway Inn
I-291
Chestnut Street
Liberty Street
Main Street
Springfield Terminal

Peter Pan Bus Lines
Route Description

Route 25 Boston-Springfield
via Wellesley, Worcester, Palmer Local

INBOUND OUTBOUND
operates 8:45pm (ESH)

Trailways Terminal, Boston
Eliot Street through Park Sq.
St. James Street
Mass Pike #22 to #15
Route 128
Route 16
Route 9 to Worcester
I-290
Vernon Street
Madison Street Trailways Terminal
Vernon Street
I-290
Mass Pike #10 to #9
Route 20 to Palmer
Central Street Term., Palmer
Main Street
Route 20 to Springfield
Boston Road (Route 20)
State Street (Route 20)
Main Street
Springfield Terminal

Peter Pan Bus Lines
Route Description

Route #28 Park Sq., Boston-Logan Airport, East Boston

INBOUND
operates 10:45 am (ESSH)
9:15 pm

Airport Road
Route C-1
Sumner Tunnel
Fitzgerald Expressway
Kneeland Street
Eliot Street
Trailways Terminal, Boston

OUTBOUND
operates 10:15 am (ESSH)
8:12 pm

Trailways Terminal, Boston
Eliot Street
Columbus Avenue
Stuart Street
Kneeland Street
Fitzgerald Expressway
Callahan Tunnel
Route C-1
Airport Road

Note: Route 28 operates as an extension of designated trips between Boston and Springfield.

Peter Pan Bus Lines
Route Description

Route # 29 Boston-Amherst (Bypass Springfield)

INBOUND
operates 4:15pm (ESa)

Trailways Terminal, Boston
Eliot Street through Park Sq.
St. James Avenue
Mass Pike #22 to #4
I-91 to 1st 'Hanp exit
Route 5
Conz Street
Old South Street Terminal
Main Street (Route 9)
Route 9 to Amherst
N. Pleasant St. Terminal
Massachusetts Avenue
Commonwealth Avenue
Campus Center Circle, U of M

OUTBOUND
operates 7:30am (ESSH)

Campus Center Circle, U of M
Commonwealth Avenue
Massachusetts Avenue
N. Pleasant St. Terminal
Route 9 to 'Hamp
Old South Street Terminal
Conz Street
Route 5
I-91
Mass Pike #4 to #6
Rodeway Inn
Mass Pike #6 to #22
Stuart Street
Carver Street
Eliot Street
Trailways Terminal, Boston

Note: This bus continues on to Logan International Airport after making contact with 8:15am Springfield-Boston bus. See Route #14 for route description

Note: Outbound bus makes extra stop at Rodeway Inn.

Peter Pan Bus Lines
Route Description

Route #31 Amherst-Springfield
via Northampton & Holyoke

INBOUND
operates 5:00am, 8:00am
11:00am, 12:01pm, 1:00pm, 2:00pm
3:00pm (FSu), 4:00pm,
6:20pm, 8:35pm, 11:00pm

Canpus Center Circle, U of M
Commonwealth Avenue
Massachusetts Avenue
N. Pleasant Street
Amherst Center Terminal
Route 9 to Northampton
Old South Street Terminal
Conz Street
Route 5
I-91
Route 141
Route 5, Holyoke Terminal
Route 141
I-91
Columbus Avenue
Liberty Street
Springfield Terminal

NOTE: 12:01pm bus operates
to Hampshire College
on Friday Only

OUTBOUND
operates 4:15am, 7:30am,
10:10am, 12:20pm, 1:30pm,
4:30pm, 6:15pm, 10:00pm
(4:15am bypass Holyoke)

Springfield Terminal
Liberty Street
Columbus Avenue
I-91
Route 141
Route 5, Holyoke Terminal
Route 141
I-91 to 1st 'Hamp exit
Route 5
Conz Street
Old South Street Terminal
Main Street (Route 9)
Route 9 to Amherst
N. Pleasant Street
Amherst Center Terminal
Massachusetts Avenue
Commonwealth Avenue
Campus Center Circle, U of M

Peter Pan Bus Lines
Route Description

Route # 32 Amherst-Springfield
via Holyoke, Easthampton, Northampton

INBOUND
operates 7:00am,
9:00am, 5:00pm

Campus Center Circle, U of M
Commonwealth Avenue
Massachusetts Avenue
N. Pleasant Street
Amherst Center Terminal
Route 9 to Northampton
Old South Street Terminal
South Street (Route 10)
Route 10 to Easthampton Ctr.
Route 141 to Holyoke
Route 5, Holyoke Terminal
Route 141
I-91
Columbus Avenue
Liberty Street
Main Street
Springfield Terminal

OUTBOUND
operates 9:15am, 11:10am,
3:15pm, 5:15pm, 9:00pm, 11:30pm

Springfield Terminal
Liberty Street
Columbus Avenue
I-91
Route 141
Route 5, Holyoke Terminal
Route 141 to Easthampton
Route 10 to Northampton
Old South Street Terminal
Main Street (Route 9)
Route 9 to Amherst
N. Pleasant Street
Amherst Center Terminal
Massachusetts Avenue
Commonwealth Avenue
Campus Center Circle, U of M

Note: sp - trips so designated in the bus assignments operate outbound direct to University of Massachusetts and then continue to Amherst Center Terminal (scheduled for 9:00pm outbound trip).

Peter Pan Bus Lines
Route Description

Route # 33 Amherst-Springfield
via Hampshire College, Northampton
and Holyoke

INBOUND operates 10:00am, 3:00pm (1:00pm, Friday Only)	OUTBOUND operates 8:30 am, 2:15pm, 7:30pm
Campus Center Circle, U of M	Springfield Terminal
Commonwealth Avenue	Liberty Street
Massachusetts Avenue	Columbus Avenue
N. Pleasant Street	I-91
Amherst Center Terminal	Route 141
S. Pleasant St. (Route 116)	Route 5, Holyoke Terminal
Hampshire College	Route 141
Bay Road	I-91 to 1st 'Hamp exit
Middle Street	Route 5
Route 9 to Northampton	Conz Street
Old South Street Terminal	Old South Street Terminal
Conz Street	Main Street (Route 9)
Route 5	Route 9 to Hadley
I-91	Middle Street
Route 141	Bay Road
Route 5, Holyoke Terminal	Hampshire College
Route 141	S. Pleasant St. (Route 116)
I-91	N. Pleasant St.
Columbus Avenue	Amherst Center Terminal
Liberty Street	Massachusetts Avenue
Main Street	Commonwealth Avenue
Springfield Terminal	Campus Center Circle, U of M

Peter Pan Bus Lines
Route Description

Route 34 Amherst-Springfield
via Northampton, Holyoke, Chicopee

INBOUND
operates 7:35pm

OUTBOUND

Campus Center Circle, U of M
Commonwealth Avenue
Massachusetts Avenue
N. Pleasant Street
Amherst Center Terminal
Route 9 to Northampton
Old South Street Terminal
Conz Street
Route 5
I-91
Route 141
Route 5, Holyoke Terminal
Route 141 to Chicopee
Route 116 to I-391
I-391
I-91
Columbus Avenue
Liberty Street
Main Street
Springfield Terminal

Peter Pan Bus Lines
Route Description

Route # 35 Amherst-Springfield
via So. Hadley

INBOUND OUTBOUND
operates 9:50pm

Campus Center Circle, U of M
Commonwealth Avenue
Massachusetts Avenue
N. Pleasant Street
Amherst Center Terminal
S. Pleasant Street (Route 116)
Route 116 to South Hadley Ctr.
Lyman Street (Route 33)
Willimansett St (Route 33)
Polonia Street
Fuller Road
I-291 (Rodeway Inn)
Chestnut Street
Liberty Street
Main Street
Springfield Terminal

Peter Pan Bus Lines
Route Description

Route 41 South Hadley-Springfield

INBOUND
operates 7:20am(ESH), 9:20(ESH), 11:20am, 1:20pm 3:20pm, 5:20pm, 7:20pm(ESSu), 8:00(Su Only), 10:20a

25 College Street, Cannon Phmcy
College Street
Lyman Street
Willimansett St (Route 33)
Memorial Dr. (Route 33)
* James Street
* Central Ave (Westover)
* James Street
Memorial Dr. (Route 33)
Polonia Street
Fuller Road
I-291 to Rodeway Inn
I-291
Chestnut Street
Liberty Street
Main Street
Springfield Terminal

OUTBOUND
operates 6:45am(ESH), 8:30am(ESH) 10:30am, 12:30pm, 2:30pm, 4:30pm 6:30pm(ESa)

Springfield Terminal
Liberty Street
Dwight Street
I-291 to Rodeway
I-291 to Fuller Road
Fuller Road
Polonia Street
Memorial Dr. (Route 33)
* James Street
* Central Ave (Westover)
* James Street
Memorial Drive (Route 33)
Willimansett St. (Route 33)
Lyman Street
College Street
25 College Street, Cannon Phmcy

* Bus operates to Westover Main gate when scheduled, if requested streets marked with * are otherwise not used.

a-See Route 35

Peter Pan Bus Lines
Route Description

Route # 51 Bradley Airport-Springfield
via I-91

INBOUND
operates 9:45am, 11:45am,
1:45pm, 2:40pm, 4:45pm
6:45pm, 8:05pm, 8:35pm

Bus Loading Zone, Lower Level
Bradley Int. Airport
Airport Road
Conn. Route 20
I-91 to Springfield
Exit 6 to Columbus Ave.
Bay State West (Marriott)
Columbus Ave
Liberty Street
Main Street
Springfield Terminal

OUTBOUND
Operates 6:05am, 7:00am, 8:00am
10:05am, 11:05am, 1:05pm, 2:05pm
4:05pm, 7:20pm, 8:45pm

Springfield Terminal
Liberty Street
N. Columbus Ave
S. Columbus Ave
Bay State West (Marriott)
N. Columbus Ave
S. Columbus Ave
I-91
Conn. Route 20
Airport Road to Upper Level
Airport Road to Lower Level
Bus Loading Zone

Peter Pan Bus Lines
Route Description

Route # 52 Bradley Airport-Springfield
via Suffield

INBOUND	OUTBOUND
operates 7:15am(ESH), 8:30am, 10:35am, 12:40pm, 3:40pm, 5:40pm, *9:20pm, *11:00pm	operates 9:05am, 12:05pm 3:05pm, 5:05pm, 6:05pm, 10:00pm
Bus Loading Zone, Lower Level Bradley Int. Airport	Springfield Terminal
Airport Road	Liberty Street
Bradley Connector	Main Street
Conn. Route 75	Vernon Street (Marriott at BSW)
Conn./Mass. Route 159	Columbus Ave
# Meadow Street	I-91
Route 159	Route 57
Route 57	Route 159
Columbus Avenue	# Meadow Street
Bay State West (Marriott)	Route 159
Columbus Avenue	Conn. Route 75
Liberty Street	Bradley Connector
Main Street	Airport Road to Upper Level
Springfield Terminal	Airport Road to Lower Level
	Bus Loading Zone

* Buses operating at these times do not normally stop at Meadow Street

\# Meadow Street is a request stop Outbound, required stop Inbound

53 West Hartford - Springfield

54 Hartford - Springfield

Peter Pan Bus Lines
Route Description

Route 53

West Hartford-Springfield
Via Bradley Field

INBOUND
operates 8:05pm

Corbin Corner Bonanza Terminal
West Hartford, Ct.
New Britain Avenue
I-84
I-91
Conn. Route 75
Conn. Route 20
Airport Road to Upper Level
Airport Road to Lower Level
Conn. Route 20
I-91
Columbus Avenue
Marriott at Bay State West
Liberty Street
Main Street
Springfield Terminal

OUTBOUND
operates 7:00am

Springfield Terminal
Liberty Street
Main Street
Vernon Street (Marriott at BSW)
Columbus Avenue
I-91
Conn. Route 20
Airport Road to Upper Level
Conn. Route 20
Conn. Route 75
I-91
I-84
High Street
Greyhound Terminal, Hartford
High Street
I-84
New Britain Avenue
Corbin Corner, Bonanza Terminal
W. Hartford, Ct.

NOTE: Bus does not stop at Hartford
Greyhound Terminal INBOUND

Peter Pan Bus Lines
Route Description

Route # 54

West Hartford-Springfield
via Hartford

INBOUND
operates 8:10am

Corbin Corner, Bonanza Term.
West Hartford, Ct.
New Britain Avenue
I-84
High Street
Greyhound Terminal, Hartford
High Street
I-84
I-91
Columbus Avenue
Liberty Street
Main Street
Springfield Terminal

OUTBOUND
operates 7:20pm

Springfield Terminal
Liberty Street
Columbus Avenue
I-91
I-84
High Street
Greyhound Terminal, Hartford
High Street
I-84
New Britain Avenue
Corbin Corner, Bonanza Terminal
West Hartford, Ct.

Peter Pan Bus Lines
Route Description

Route # 61 Westfield/Springfield

INBOUND
operates 7:20am, 11:30am,
2:20pm(ESSH), 5:20pm, 8:15pm

Administration Building
Westfield State College
Western Avenue
Western Avenue
Court Street
Broad Street
Main Street
Route 20 to Springfield
Main Street
Springfield Terminal

OUTBOUND
operates 6:45am, 11:00am
1:30pm(ESSH), 4:30pm, 7:30pm

Springfield Terminal
Liberty Street
Main Street
West Street (Route 20)
Route 20 to Westfield
Elm Street
Western Avenue
Admin Bldg, Westfield State

Peter Pan Bus Lines
Route Description

Route 71 Palmer-Springfield

INBOUND
operates 7:00am, 8:00am, 10:00am,

Central Street Terminal, Palmer
Route 20
Boston Road (Route 20)
State Street (Route 20)
Main Street
Springfield Terminal

OUTBOUND
operates 6:00am, 7:15am 9:15am

Springfield Terminal
Liberty Street
Main Street
State Street (Route 20)
Boston Road (Route 20)
Route 20
Main Street, Palmer
Central Street Terminal, Palmer

Additional service to and from Palmer is operated as part of Routes # 15, 16,18,19, 20, 22, 23,24,25, 81, & 82

Peter Pan Bus Lines
Route Description

Route # 72 Eastfield Mall-Springfield

INBOUND
operates 1:40 pm
4:45 pm, 5:35 pm

Eastfield Mall
Boston Road (Route 20)
State Street (Route 20)
Main Street
Springfield Terminal

OUTBOUND
operates 1:00 pm, 3:15 pm
5:15 pm

Springfield Terminal
Liberty Street
Main Street
State Street (Route 20)
Boston Road (Route 20)
Eastfield Mall

Peter Pan Bus Lines
Route Description

Route # 81 Worcester-Springfield
Local

INBOUND operates 2:20 pm	OUTBOUND operates 12:15pm
Madison Street Trailways Term.	Springfield Terminal
Vernon Street	Liberty Street
I-290	Main Street
Route 9	State Street (Route 20)
Route 67	Boston Road (Route 20)
Route 20	Route 20 to Palmer
Central Street Term., Palmer	Main Street, Palmer
Main Street	Central Street Term., Palmer
Route 20	Route 20
Boston Road (Route 20)	Route 67
State Street (Route 20)	Route 9
Main Street	I-290
Springfield Terminal	Vernon Street
	Madison Street Trailways Term.

Additional Service provided to and from Worcester as part of Routes # 16, 17, 20, 22, 23, &25

Peter Pan Bus Lines
Route Description

Route # 82 Worcester-Springfield
Via Mass Pike & Palmer

INBOUND operates 7:40pm	OUTBOUND operates 6:15pm
Madison Street Trailways term.	Springfield Terminal
Vernon Street	Liberty Street
I-290	Main Street
Mass Pike #10 to #8	State Street (Route 20)
Route 32	Boston Road (Route 20)
Route 20	Route 20 to Palmer
Central Street Terminal, Palmer	Main Street, Palmer
Main Street	Central Street Term., Palmer
Route 20	Route 20
Boston Road (Route 20)	Route 32
State Street (Route 20)	Mass Pike #8 to #10
Main Street	I-290
Springfield Terminal	Vernon Street
	Madison Street Trailways Terminal

Peter Pan Bus Lines
Route Description

Route # 91 CAPE COD-Springfield

INBOUND	OUTBOUND
operates 6:15 pm	operates 2:15 pm
Hyannis Terminal	Springfield Terminal
Barnstable Road	Liberty Street
Route 132	Dwight Street
Route 6	I-291 to Rodeway Inn
Sagamore Bridge	Across I-291 to Mass Pike
Sagamore Circle	Mass Pike #6 to #10
Route 6	I-290
Main St., Buzzards Bay	Greyline Terminal, Worcester
Buzzards Bay News	281 Main Street
Main St., Buzzards Bay	Route 122
Route 6	Mass Pike #11 to #13
Route 25	Speen Street Trailways Terminal
Route 24	Mass Pike #13 to #14
Route 128	Route 128
Mass Pike #14 to #13	Route 24
Speen Street Trailways Terminal	Route 25
Mass Pike #13 to #11	Route 6
Route 122	Main Street, Buzzards Bay
Greyline Terminal, Worcester	Buzzards Bay News
281 Main Street	Main Street, Buzzards
I-290	Route 6
Mass Pike #10 to #16	Sagamore Circle-drop off on request
Across I-291 to Rodeway Inn	Sagamore Bridge
I-291	Route 6
Chestnut Street	Route 132
Liberty Street	Barnstable Road
Main Street	Hyannis Terminal
Springfield Terminal	

Note: This service operated Friday and Sunday only during the Winter quarter. Operated as a daily service during summer travel period, June-October.

PETER PAN BUS LINES, INC., SPRINGFIELD, MASS., 01103

SCHEDULE EFFECTIVE DECEMBER 1979

BUS ASSIGNMENTS MONDAY TO FRIDAY

																	Bus Hours	Bus Miles
1	s355 x405	31 415 500	51 605 e	52 e 715	51 800 e	52 e 830	51 1005 e	52 e 1035	52 1205 1240	19 215 e	13 e 530	54 720 e	53 e 805	=	915		17:10	490
2	s525 x535	13 545 e	12 e 815	31 1010 1201	14 115 e	11 e 415	31 615 e	34 e 735	72 845 915	=	955						16:20	494
3	s540 x550	71 600 700	11 815 e	14 e 1015	31 1220 200	12 315 530	33 730 e	31 e 835	=	935							15:45	510
4	s625 x635	11 645 915	61 1100 1130	81 1215 220	61 430 520	=	600										11:25	334
5	s625 x705	41 645 720	41 830 920	41 1030 1120	41 1230 120	=	210				s355 x405	21 415 e	24 e 745	31 1000 1100	=	1210	15:10	368
6 M	s640 x650	32 - 700	11 815 e	24 e 1201	33 215 e	31 e 400	12 515 e	25 e 845	32 1130 A	=	M 1235						17:45	480
7	s640 x630	53 700 e	54 e 810	71 915 1000	32 1110 e	31 e 100	41 230 320	41 430 520	82 615 740	=	910						14:20	334
8	s655 x705	15 715 e	23 e 1015	31 130 e	33 e 300	51 405 445	52 605 e	51 e 645	51 720 805	51 845 e	52 e 920	52 1000 1100	=	1145			16:40	450
9	s655 x705	71 715 800	52 905 e	51 e 945	51 1105 1145	51 105 145	52 305 340	52 505 540	=	630							11:25	240
																Subtotal	136:00	3,700

PETER PAN BUS LINES, INC., SPRINGFIELD, MASS. 01103

SCHEDULE EFFECTIVE DECEMBER 1979

BUS ASSIGNMENTS MONDAY TO FRIDAY

													Bus Hours	Bus Miles
			29	28		29								
10		s710	730	1015	1110	e		M					11:10	236
	M	x720	e	1045	Wait	415	=	630						
		s710	31	32	17	11	32	14	28	12				
11		x720	730	e	1015	e	315	615	812	e	=	1140	16:20	488
			e	900	e	115	500	e	915	945				
			31	13		12	31							
12		s740	-	915	1105	e	430		M				9:35	240
	M	x750	800	e	Wait	215	A	=	525					
		s810	33	18	20	41								
13		x820	830	1115	e	630	=	810					11:50	272
			1000	e	315	720								
		s855	32	31	12	13	32	31	61	22	18			
14		x905	915	e	1215	e	515	e	730	905	e	= 225	17:20	504
			e	1100	e	315	e	620	815	e	1159			
		s1240	72		72	72								
15		x1250	100	205	315	515	=	615					5:25	42
			140	Wait	445	535								
		s110	61	17	12	32	35							
16		x120	130	315	e	900	e	=	1100				9:40	264
			220	e	645	sp	950							
Subtotal													81:20	2,046
Page 1													136:00	3,700
Total													217:20	5,746
Average													13:30 hours	359 miles

27 bus miles per bus hour

Key:
- s Sign on at garage
- x Pull out from garage
- - Outbound trip not scheduled; operate inbound only
- A Inbound trip not scheduled; operate outbound only
- M Bus originates/terminates Amherst garage
- = Return to garage at time shown

exchanged with a fresh bus. Having the Peter Pan garage in Springfield located on the same city block as the Springfield Bus Terminal greatly facilitates the positioning of buses needed to operate the schedule, especially on short notice.

As shown on page 2 of Exhibit 22, the average daily utilization of Peter Pan buses assigned to scheduled service is 13.5 hours. These buses are scheduled to operate an average of 360 bus miles per day. This is more than double the scheduled average daily bus utilization of 170 miles for Kinson Bus Lines; in addition, almost half of Kinson's bus miles were "deadhead" miles.

The high average level of utilization achieved by buses assigned to Peter Pan's scheduled service is largely made possible by the fact that only a small proportion of Peter Pan passengers are commuters. Based on a spot check of Peter Pan's 15 most heavily travelled markets, only 16 percent of passengers utilized commuter tickets. In contrast, 88 percent of Kinson Bus Lines passengers utilized commuter tickets. While an estimated 88 percent of Kinson's riders are commuters, an estimated 50 percent of Peter Pan's riders are students attending one of the many colleges in the Springfield - Northampton - Amherst area. Since the hours at which these students travel are not confined to the normal commuter hours, but instead extend throughout the day, this permits Peter Pan to obtain a high average level of bus utilization in the operation of its basic daily schedule. However, since travel by students to and from western Massachusetts peaks on Fridays and Sundays, those buses in the Peter Pan fleet which are required for the operation of second section trips on Fridays and Sundays are, in most cases, utilized on only two days per week.

Exhibit 23 summarizes Peter Pan's 1979 escorted tour program. These tours are marketed by an affiliated company Peter Pan World Travel, Inc. acting as a tour broker. Peter Pan Bus Lines, Inc. charters the necessary buses to Peter Pan World Travel, Inc. at

PETER PAN BUS LINES. INC.
1979 ESCORTED TOUR PROGRAM

Tour Destination	Number of Days in Tour	Number of Departures Scheduled	Bus Days
Florida Circle	14	8	112
Pennsylvania Dutch Tour	4	23	92
Pocono Mountains	4	23	92
Atlantic Coast, Canada & Nova Scotia	8	10	80
Maine Downeast Weekend	3	19	57
Maine Coast & Boothbay Harbor	4	12	48
Walt Disney World, Florida	9	5	45
Quebec & Gaspe	7	6	42
Reading Philadelphia	4	10	40
Texas & Deep South	19	2	38
Mackinaw Island & Great Lakes	9	4	36
Nashville & Grand Ole Opry	9	4	36
Toronto, Niagara Falls, 1000 Islands	6	6	36
Pennsylvania Dutch Weekend	3	10	30
Niagara Falls	3	9	27
Montreal & Laurentians	5	5	25
Montreal & Quebec City	5	5	25
Pocono Mts. & Finger Lakes	5	5	25
Atlantic Coast, U.S. & Canada	5	4	20
Florida Deluxe	18	1	18
Atlantic City	4	4	16
Quebec City Adventure	4	4	16
Toronto	4	4	16
Washington Cherry Blossoms	4	4	16
Charleston/Mobile/New Orleans	15	1	15
Washington Weekend	3	5	15
Michigan Tulip Festival	7	2	14
Atlantic City	3	4	12
Hunter Mt., N.Y., Polka Festival	4	3	12
Newport, Martha's Vineyard, Cape Cod	4	3	12
Pocono Mountains	3	4	12
Other Destinations	3	71	220
	Total	280	1240

its standard charter rates. As shown in Exhibit 23, operation of the 1979 tour program involved a total of 1240 bus days. Assuming that the duration of the average tour is 4 days, and that most tours operate on weekends, then one bus utilized 4 days per week for 50 weeks per year, would account for 200 bus days. The operation of a tour program of 1240 bus days would then require a fleet of at least 6 buses.

Ideally, buses needed for the operation of weekend second sections for the scheduled service could be utilized during the middle of the week for the operation of escorted tours. However, both the demand for escorted tours and the demand for scheduled service peaks on weekends, especially during the summer months. Such dual utilization of equipment is thus rarely if ever attainable. Comparing a winter weekend and a summer weekend, the Peter Pan fleet of 49 intercity coaches might be utilized as follows:

Services to Which Buses Assigned	Winter Weekend	Summer Weekend
Schedules	20	27
Charters	5	9
Tours	5	9
Unassigned	15	0
Maintenance	4	4
TOTAL	49	49

Thus, each basic activity in which Peter Pan Bus Lines is involved, scheduled services, charters and tours must maintain not only a basic year round fleet, but also its own extra buses to be utilized to accommodate peak demand during the summer months.

The most recent readily available data on passengers carried and revenues earned by Peter Pan's scheduled services is provided by a one week audit of all passenger tickets covering the seven day period, December 4-10, 1978. No more recent data was readily

available, nor is this early December period considered really representative as a sample of average year round passenger volumes. Completion of a separate ticket audit for a more recent and possibly more representative week was, however, beyond the scope of this study. Analysis of the December 1978 ticket audit data was completed and these data provide some useful comparisons.

As shown in Exhibit 24, Peter Pan buses carried a total of 11,397 passengers during the week of December 4-10, 1978. Of the ticket revenue for the period, 85 percent was derived from the sale of intrastate full fare tickets. Only 5 percent of Peter Pan ticket revenues were derived from the sale of intrastate commuter tickets. The average fare earned per passenger ticket sold was $3.80.

As Exhibit 25 shows that 2,648, or 23 percent, of 11,397 passengers covered in this seven day survey were carried in the Springfield-Boston market. Combining all passengers originating or terminating at Boston and the suburban Natick terminal yields 5,269 passengers, or 46 percent of the total. As the exhibit shows, the largest 15 markets in terms of passenger volume accounted for 89 percent of all Peter Pan passengers. The remaining 11 percent of Peter Pan passengers were distributed among an additional 74 city pair markets. For convenience, the remainder of this analysis is limited to the 15 markets which account for 89 percent of Peter Pan passengers.

Exhibit 26 shows the one-way mileage and one-way fares in each of Peter Pan's top 15 markets. The fare per mile ranges from a low of 5.4¢ in the intrastate Northampton-Boston market to a high of 15.5¢ on the Springfield-Bradley airport service. In these top 15 markets, Peter Pan's weighted average fare per passenger mile was 6.9¢

PETER PAN BUS LINES

AVERAGE REVENUE BY TYPE OF TICKET

DECEMBER 4-10, 1978

Ticket Category	Ticket Revenue	Percent of Revenue	Passengers Carried	Average Fare
Intrastate-Full Fare	$36,509	85%	8,676	$ 4.20
Interstate-Full Fare	2,134	5	736	2.90
Bradley Airport Service	1,984	5	718	2.76
Intrastate-Commuter	1,875	4	872	2.15
Other: Half Fares; Cash Fares	655	1	395	1.66
Total	$43,157	100%	11,397	$ 3.80

Exhibit 24

PETER PAN BUS LINES

PASSENGER ORIGIN AND DESTINATION SURVEY

DECEMBER 4-10, 1978

Market	Passengers Carried	Percent of Total	Cumulative Percent
Springfield-Boston	2648	23%	
Springfield-Amherst	1610	14	
Amherst-Boston	1426	13	
Springfield-Northampton	962	8	
Springfield-Palmer	548	5	63%
Springfield-Bradley Field	527	5	
Northampton-Boston	519	5	
Springfield-Worcester	453	4	
Springfield-Holyoke	355	3	
Amherst-Natick	319	3	83%
Springfield-Natick	192	2	
Holyoke-Boston	165	1	
Springfield-Westfield	160	1	
Springfield-S. Hadley	118	1	
Amherst-Holyoke	114	1	89%
All Other	1281	11	
Total	11397	100%	

PETER PAN BUS LINES
AVERAGE FARE PER MILE
DECEMBER 4-10, 1978
TOP FIFTEEN MARKETS

Market	Passengers Carried	One-Way Mileage	One-Way Fare	Fare Per Mile
Springfield-Boston	2648	92	$ 5.10	5.54¢
Springfield-Amherst	1610	28	1.75	6.25
Amherst-Boston	1426	120	6.40	5.88
Springfield-Northampton	962	20	1.50	7.50
Springfield-Palmer	548	15	1.20	8.00
Springfield-Bradley Field	527	21	3.25	15.48
Northampton-Boston	519	112	6.10	5.44
Springfield-Worcester	453	51	3.20	6.27
Springfield-Holyoke	355	9	1.00	11.11
Amherst-Natick	319	102	6.40	6.27
Springfield-Natick	192	74	5.10	6.89
Holyoke-Boston	165	101	5.75	5.69
Springfield-Westfield	160	12	1.15	9.58
Springfield-S. Hadley	118	16	1.60	10.00
Amherst-Holyoke	114	19	1.20	6.32
Total	10116	Average	3.80	
Weighted Average Fare Per Passenger Mile				6.94

Revenue yield is a function not only of the published one-way passenger fare but also of the discounts applicable to these fares. In the case of intercity bus travel the principal discounts offered are for half fare childrens tickets and for commuter books. Exhibit 27 shows the actual revenue earned by Peter Pan. In the top 15 markets the revenue yield was 6.85¢ per passenger mile.

Exhibit 28 compares Peter Pan's average fare per mile with Peter Pan's average revenue per mile. As the exhibit shows, the average revenue per mile in the Springfield-Boston market is 1.4 percent less than the published one-way fare per mile. This revenue dilution results primarily from the sale of commuter tickets. Based on Peter Pan's ticket audit, 205 of the 2,648 passengers in the Springfield-Boston market travelled on commuter tickets. The greatest dilution of revenue occurred in the Amherst-Boston market, with its large proportion of student travel, where the revenue yield was 12.1 percent less than the published one-way fare per mile.

In addition to revenue dilution, a carrier such as Peter Pan which also handles interstate passengers can also experience revenue stimulation. This occurs when interstate passengers who pay fares which are higher than intrastate fares, ride in the same bus alongside intrastate passengers. For example, buses on the Springfield-Amherst route carry both intrastate passengers and interstate passengers. The interstate passengers, who may, for example, be travelling from Amherst to New York City, buy a single through ticket at an interstate fare per mile which is higher than the intrastate fare of 6.25¢ per mile. For the Amherst-Springfield trip a portion of the total ticket price is credited to Peter Pan; the remainder of the ticket price is credited to Greyhound or Trailways for carrying the passenger from Springfield to New York. When the amount credited to Peter Pan exceeds the one-way local fare per mile , Peter Pan's average revenue yield

PETER PAN BUS LINES
AVERAGE REVENUE PER PASSENGER MILE
DECEMBER 4-10, 1978
TOP FIFTEEN MARKETS

Market	Passengers Carried	One-Way Mileage	Passenger Miles	Revenue	Revenue Per Passenger Mile
Springfield-Boston	2648	92	243,600	$13,311	5.46¢
Springfield-Amherst	1610	28	45,100	2,953	6.54
Amherst-Boston	1426	120	171,100	8,843	5.17
Springfield-Northampton	962	20	19,200	1,463	7.62
Springfield-Palmer	548	15	8,200	635	7.74
Springfield-Bradley Field	527	21	11,100	1,658	14.94
Northampton-Boston	519	112	58,100	3,129	5.39
Springfield-Worcester	453	51	23,100	1,453	6.29
Springfield-Holyoke	355	9	3,200	370	11.56
Amherst-Natick	319	102	32,500	2,042	6.28
Springfield-Natick	192	74	14,200	975	6.87
Holyoke-Boston	165	101	16,700	946	5.66
Springfield-Westfield	160	12	1,900	183	9.63
Springfield-S. Hadley	118	16	1,900	197	10.37
Amherst-Holyoke	114	19	2,200	130	5.91
Total/Average	10116	64	652,100	$38,287	
Weighted Average Revenue Per Passenger Mile					6.85¢

PETER PAN BUS LINES
AVERAGE REVENUE DILUTION
DECEMBER 4 - 10, 1978
TOP FIFTEEN MARKETS

Market	Passengers Carried	Fare Per Mile[1]	Revenue Per Mile[1]	Revenue Dilution (Stimulation)
Springfield-Boston	2,648	5.54¢	5.46¢	- 1.4%
Springfield-Amherst	1,610	6.25	6.54	+ 4.5
Amherst-Boston	1,426	5.88	5.17	-12.1
Springfield-Northampton	962	7.50	7.62	+ 1.6
Springfield-Palmer	548	8.00	7.74	- 3.2
Springfield-Bradley Field	527	15.48	14.94	- 3.5
Northampton-Boston	519	5.44	5.39	- 0.9
Springfield-Worcester	453	6.27	6.29	+ 0.3
Springfield-Holyoke	355	11.11	11.56	+ 4.1
Amherst-Natick	319	6.27	6.28	- 0.2
Springfield-Natick	192	6.89	6.87	- 0.3
Holyoke-Boston	165	5.69	5.66	- 0.5
Springfield-Westfield	160	9.58	9.63	- 0.5
Springfield-S. Hadley	118	10.00	10.37	+ 3.7
Amherst-Holyoke	114	6.32	5.91	- 6.5
Total	10,116			
Weighted Average		6.94¢	6.85¢	- 1.3%

per passenger mile increases to an amount greater than the published one-way fare per mile. In the Springfield-Amherst market, this revenue stimulation amounted to 4.5 percent of the one-way fare per mile.

For Peter Pan's top 15 intercity markets, the weighted average revenue dilution was only 1.3 percent. As will be recalled, Kinson Bus Lines average revenue dilution was 16.4 percent. In addition, Kinson's published one-way fares are lower than Peter Pan's one-way fares as the following table shows:

	Peter Pan	Kinson
Average one-way fare per mile	6.94¢	6.10¢
Average revenue hield per mile	6.85¢	5.10¢
Average dilution	- 1.3%	-16.4%

Comparing Peter Pan's average yield of 6.85¢ per passenger mile with Kinson's yield of 5.10¢ per passenger mile, it will be seen that Kinson's actual revenues earned per passenger mile were 25 percent less than the revenues per passenger mile earned by Peter Pan.

While a survey of passengers carried during the first ten days in December is probably not representative of Peter Pan's year round ridership, an approximation of the load factor on Peter Pan's primary routes can be computed. As shown in Exhibit 29 the estimated load factor on the Springfield-Boston route segment was 52 percent. On the Springfield-Amherst route segment, the estimated load factor was 41 percent. Load factors during vacation and holiday travel periods are presumably much higher. The fact that Peter Pan achieved load factors of 40-50 percent during a week judged to be an off-peak period with respect to the demand for bus travel suggests that Peter Pan's schedules are well tuned to actual levels of passenger demand.

PETER PAN BUS LINES
ESTIMATED LOAD FACTOR
DECEMBER 4-10, 1978

Springfield-Boston Route

Passengers Carried			
Springfield-Boston	2,648		
Amherst-Boston	1,426		
Springfield-Palmer	548		
Northampton-Boston	519		
Springfield-Worcester	453		
Amherst-Natick	319		
Springfield-Natick	192		
Holyoke-Boston	165		
			6,270
Seats Offered			
Scheduled Trips[1/]			
Eastbound	127		
Westbound	128		
		255	
Average seats per bus[2/]		x 47.33	
			12,070
Estimated average load factor			52%

1/ Based on schedule in effect in December 1979.

2/ Based on Peter Pan fleet in December 1979, PVTA buses excluded.

PETER PAN BUS LINES
ESTIMATED LOAD FACTOR
DECEMBER 4-10, 1978

Springfield-Amherst Route

Passengers Carried		
Springfield-Amherst	1,610	
Amherst-Boston	1,426	
Springfield-Northampton	962	
Northampton-Boston	519	
Springfield-Holyoke	355	
Amherst-Natick	319	
Holyoke-Boston	165	
		5,356
Seats Offered		
Scheduled Trips[1/]		
Northbound	147	
Southbound	128	
	275	
Average Seats per bus[2/]	x 47.33	
		13,015
Estimated average load factor		41%

1/ Based on schedule in effect in December 1979.

2/ Based on Peter Pan fleet in December 1979, PVTA buses excluded.

Utilizing a similar methodology for computing load factors, the load factor on the Springfield-Westfield route was only 8 percent. This is a lightly travelled route with only five scheduled daily trips. On the Springfield-Bradley Airport route the estimated load factor was 7 percent. Presumably, during vacation and holiday periods when the demand for airline travel peaks, the load factor on the Springfield-Bradley Airport route is significantly higher. Ridership on this route was described as "feast or famine" by a Peter Pan official. Because the average fare per mile on the Springfield-Bradley Airport route is 2.7 times the average fare on the Springfield-Boston route, Peter Pan can justify year-round operation of the Bradley Airport route in spite of the cyclical pattern of ridership.

One interesting way to compare the relative earning power of Peter Pan and Kinson is to compute the average revenue earned per bus per day. As shown in Exhibit 30, the average Peter Pan bus earns three times as much revenue per passenger per day as does the average Kinson bus. On the basis of this data, one would expect to find that Peter Pan has less difficulty generating the funds required for the purchase of replacement buses than does Kinson.

Peter Pan's average revenue per bus mile in scheduled service can be estimated as follows:

Bus miles scheduled per day	5,746
	x 7
Bus Miles scheduled per week	40,222
Passenger Revenue December 4-10,1978	$43,157
Average revenue per bus mile	$1.07

In contrast, Kinson's average revenue per bus mile in 1979 was 76¢. During 1978, Peter Pan's average cost per bus mile was probably about $1.05 per bus mile allowing Peter Pan a very modest profit on scheduled intercity bus service.

COMPARISON OF AVERAGE REVENUE PER BUS PER DAY FOR PETER PAN BUS LINES AND KINSON BUS LINES

	Peter Pan		Kinson
Passengers Per Week	11,397		
	÷ 7		
Passengers Per Day	1,628		286
Buses in Schedule	÷ 16		÷ 4
Average Passengers Per Bus Per Day	102		71
Average Fare Per Passenger	$3.80		$1.82
Average Revenue Per Bus Per Day	$387		$129
Ratio		3:1	

IV. THE BUS FLEET OF INTERCITY BUS LINES SERVING MASSACHUSETTS

The scope of this study includes all intercity bus lines, utilizing full-sized intercity buses, whose scheduled routes include one or more points in Massachusetts, and which operate at least one round trip per day at least five days per week. Not included within the scope of this study are bus lines which operate charters but not scheduled service, and bus lines whose entire fleet is made up of transit buses or school buses. 1/ Similarly excluded from the scope of this study are operators of airport "limousines", so called, and operators of other minibus or similar vehicles having a capacity of 29 or fewer passengers.

By the above definition, we find that there are now 28 intercity bus lines operating in Massachusetts. Exhibit 32 lists these carriers alphabetically, showing for each their principal route, the number of buses in their fleet, and their average age of fleet. The combined fleet utilized to serve Massachusetts points of all 28 carriers is 687 buses. In the fourth quarter of 1979, these buses had an average age of fleet of 7.0 years.

A generally accepted industry standard for average age of fleet is that to remain competitive with alternate transportation forms, intercity bus fleets should be maintained at an average age of fleet of from 6.0-7.5 years. To maintain this standard requires regular annual replacement of not less than 1/12 to 1/15 (8.3-6.7%)

1/ The distinction between coaches and suburbans on the one hand, and transits and school buses on the other hand, is set forth in Exhibit 31.

DEFINITION OF MAJOR TYPES OF BUSES

Type of Bus	Engine Location	Engine Type	Door Location[1/]	Number Of Doors	Air Conditioned	Luggage Lockers	Reclining Seats	Lavatory
Coach	Rear	Diesel	F	1	Yes	Yes	Yes	Usually
Suburban	Rear	Diesel	F	1	Yes	Limited	No	No
Transit	Rear	Diesel	F	2	No	No	No	No
School Bus	Front	Gas	R	2	No	No	No	No

1/ F = Front door located in front of front axle.
R = Front door located in rear of front axle.

MASSACHUSETTS INTERCITY BUS STUDY
BUS FLEET UTILIZED TO SERVE MASSACHUSETTS POINTS
1979

Carrier	Principal Route	Number Of Buses In Fleet	Average Age Of Fleet
A.B.C.	Providence-Boston	17	16.2 years
Barre	Rutland,MA-Worcester	2	18.0
Bay State	Middleboro-Boston	2	7.0
Big W.	Milford-Framingham	3	18.3
Bloom	Taunton-Boston	10	10.5
Bonanza	Providence-Boston	62	2.7
Boscom	Haverhill-Boston	9	16.8
Brander	Taunton-Providence	16	8.3
Cape Cod	Provinctown-Hyannis	6	15.7
Concord	Concord, NH-Boston	9	9.7
Englander	Williamstown-Boston	8	4.2
Gray Line	Worcester-Boston	24	5.5
Greyhound[1/]	New York City-Boston	110	3.5
Hub	Lexington-Boston	11	12.4
Hudson	Weymouth-Boston	6	10.4
Interstate	Stoughton -Boston	13	8.5
Kinson	Newburyport-Boston	10	6.7
Medeiros	New Bedford-Boston	5	5.2
Michaud	Rochester, NH-Boston	14	3.4
Peter Pan	Springfield-Boston	49	3.6
Pierce	Dracut-Lowell	4	13.5
Plymouth & Brockton[2/]	Hyannis-Boston	94	7.0
Ritchie	Northboro-Boston	9	10.4
Suburban	Natick-Boston	16	11.4
Trailways	New York City-Boston	75	8.0
Travel Time	Webster-Worcester	7	18.6
Trombly	Lawrence-Boston	46	12.8
Vermont	Burlington, VT-Boston	50	4.4
Total 28		687 buses	7.0 years

Notes appear on Page 2 of 2

1/ Of the Greyhound Lines East fleet of 1511 buses, Tramco has computed by means of schedule analysis, that approximately 55 buses are required to operate the first section of all Greyhound schedules serving points located east of the Hudson River; an equal numer of buses are assumed to be required for the operation of additional sections during peak periods and as a reserve for maintenance. This subset of 110 buses is assumed to have the same average age as does the overall Greyhound Lines East fleet.

2/ The fleet of 94 buses shown for Plymouth & Brockton is the composite intercity bus fleet of four carriers owned by members of the Anzuoni family: Plymouth & Brockton - 49; Brush Hill - 31; McGinn - 11; Service - 3. The operation of the peak period Plymouth & Brockton timetable requiring a fleet of 65 buses is accomplished by means of extensive cross leasing among these interrelated carriers.

of the fleet so that some new buses are received each year and no old buses in the fleet are older than 12 to 15 years. By the time a bus reaches 15 years of age, not only has the interior become shopworn, but also the condition of the drive train and body structure make further investment in the old bus more costly on a per-mile basis than the purchase of a new bus. As a general rule, while buses older than 15 years old are often dependable from a mechanical point of view, such buses are generally no longer acceptable to the travelling public from an appearance or marketing standpoint. Thus, individual carriers having an average age of fleet of more than 7.5 years are at a significant disadvantage when trying to compete with other carriers or other modes.

Carriers which are heavily involved in charter and tour business usually find it advisable to maintain their average age of fleet at 5.0 years or less. These carriers replace 10 percent of their fleet each year so that some new buses are received each year and no old buses in the fleet are older than ten years old.

Appendix 1, bound separately, lists in detail bus fleets of each of the 28 intercity bus lines serving Massachusetts. In the case of the fleet total for Greyhound and for Plymouth and Brockton, some explanation is necessary. As shown on page 13 of Appendix 1, the data furnished by Greyhound Corporation covers the entire Greyhound Lines East fleet of 1511 buses. This fleet serves a large area in the eastern United States, roughly east of a line through Cleveland and Louisville. By means of schedule analysis, Tramco has computed that approximately 55 buses are required to operate the first section all Greyhound schedules serving points located east of the Hudson River. This analysis assumes that all buses arriving in Albany or New York City are turned around. In fact, of course, many buses are through-routed to points beyond Albany or New York City. We have further assumed that an additional 55 buses are required for the operation of second sections during peak periods and as a reserve for maintenance. This subset of 110 buses is assumed to have the same average age as does the overall Greyhound Lines East fleet.

In the case of Plymouth & Brockton, the fleet total of 94 buses is a composite of the intercity bus fleet of four carriers owned by members of the Anzuoni family: Plymouth & Brockton-49; Brush Hill-31; McGinn-11; Service-3. The fleets of these four carriers are listed in pages 22-25 of Appendix 1. The operation of the peak period Plymouth & Brockton timetable requires a fleet of 65 buses. This is 26 buses more than the number of buses owned by Plymouth & Brockton. Operation of the weekday timetable is accomplished by means of extensive cross leasing of buses among the four carriers owned by the Anzuoni family.

Taken together, the 687 buses in the intercity fleet serving Massachusetts were produced by the following manufacturers:

	Buses
Motor Coach Industries/Transportation Manufacturing Corporation	298
General Motors	286
Eagle International	89
Prevost Car	7
Twin Coach	6
Mack	1
	687

General Motors, Twin Coach and Mack no longer manufacture intercity coaches. While Twin Coach and Mack have not been in the bus business for some time, the decision by General Motors to discontinue the manufacture of intercity coaches was announced in 1979. For 14 of the 28 carriers serving Massachusetts, this decision raises some concern. These 14 carriers have standardized their intercity fleet on General Motors coaches. For these carriers it will now be necessary to purchase new coaches from a different manufacturer. During the changeover period, until all of the General Motors coaches have been replaced, these carriers will lose some of the advantages of fleet standardization.

Exhibit 33 lists the four manufacturers currently selling intercity coaches in North America. In reality, there are three manufacturers, since both Motor Coach Industries (MCI) and Transportation Manufacturing Corporation (TMC) are Greyhound subsidiaries, and buses manufactured by MCI and TMC are virtually identical. Exhibit 34 compares the basic specifications and 1979 production figures for the three manufacturers. Of the approximately 1,600 intercity buses produced in 1979, 1,150 or 72 percent were manufactured by MCI/TMC.

All three intercity coaches - those manufactured by MCI, Eagle, and Prevost - are 40 feet long and 8 feet wide. These are the maximum vehicle dimensions for single unit vehicles permitted to operate on the Interstate Highway system. The standard seating plan provides for 47 passenger seats. Alternate seating plans are available as shown in Exhibit 35. The normal range of seating plans is from 43 to 49 seats. Greyhound has standardized on 43 seats by removing one double seat from each side of the aisle. This affords additional comfort by providing each passenger with an extra three inches of leg room. The standard 47 passenger seating arrangement is based on a 33 inch seat pitch. As a general rule, a 32 inch seat pitch is the minimum seat pitch providing an acceptable level of comfort for the full range of adult passengers, both male and female. The 49 passenger seating arrangement is accomplished by installing an additional double seat on the driver's side, with 12 rows on the driver's side and 11 rows on the curb side. The addition of a 12th row on the driver's side reduces the seat pitch to 30" on that side. This is 2" less than the minimum seat pitch providing an acceptable level of comfort for the full range of adult passengers, both male and female. To accommodate adult male passengers at a minimum acceptable level of comfort, it is Tramco's opinion that a seat pitch of not less than 32 inches is required. This means that 47 seats is the maximum number of passenger seats which should be installed in a lavatory-equipped intercity coach.

North American Manufacturers of Intercity Coaches

Manufacturer	Parent Company
Eagle International, Inc. 2045 Les Mauldin Boulevard Brownsville, TX 78520 512-541-3111	Trailways, Inc. Dallas, TX
Motor Coach Industries 1149 St. Matthews Avenue Winnipeg, Canada R3G 0J8 204-786-3301	Greyhound Lines of Canada, Ltd. Calgary, Alberta
Prevost Car, Inc. Ste-Claire, Quebec Canada G0R 2V0 418-883-3391	Independent
Transportation Manufacturing Corp.[2/] P.O. Box 5670 Roswell, NM 88201 505-347-2011	Greyhound Corporation Phoenix, AZ

1/Greyhound Lines of Canada, Ltd. is 60 percent owned by Greyhound Corporation.

2/Both Motor Coach Industries (MCI) and Transportation Manufacturing Corporation (TMC) are Greyhound subsidiaries. Buses manufactured by MCI and TMC are virtually identical, the principal difference being the location of the final assembly process.

BASIC SPECIFICATIONS OF INTERCITY COACHES
MANUFACTURED IN NORTH AMERICA

Manufacturer	Model Name	Nominal Length	Nominal Width	Standard Seating	1979 Production	Market Share	1979 Delivery Delay (Months)
Motor Coach Industries[1/]	MC-9	40'	8'	47	1,150	72%	30
Eagle Internat'l	Eagle	40'	8'	46	300	19%	6
Prevost Car	Mirage	40'	8'	47	150	9%	20
					1,600	100%	

1/Production for TMC included in figure for MC1. MC-9 and TM-9 are substantially identical. All three manufacturers utilize General Motors Detroit Diesel engines.

ALTERNATE SEATING PLANS AVAILABLE IN
LAVATORY EQUIPPED INTERCITY COACHES

Double Seats on Driver's Side	Seat Pitch[1/]	Double Seats on Curb Side	Seat Pitch[1/]	Seats on Rear Bench	Total Seats
10	36"	10	36"	3	43
11	33"	11	33"	2	46
11	33"	11	33"	3	47
12	30"	11	33"	3	49

Without a lavatory, the 49 seat seating plan is available as a 51 seat seating plan with 12 rows on both the driver's side and the curb side.

1/Seat pitch is the distance between seats as measured from the front of one seat cushion to the front of the next seat cushion.

Exhibit 36 lists the 28 intercity bus lines serving Massachusetts by size. There are seven carriers with from 46 to 110 buses in their fleets; there are 21 carriers with from 2 to 24 buses in their fleets. The seven large carriers taken together account for 71 percent of the total fleet. Thus, each of these carriers has an average of ten percent of the bus fleet, and by extension, ten percent of the market for bus service. Each of these seven carriers are well known and have good visibility in the marketplace.

In Exhibit 36, the 21 small carriers taken together account for 29 percent of the total bus fleet serving Massachusetts. This means that the average small carrier has an average of only 1-1/3 percent of the bus fleet, and by extension, 1-1/3 percent of the market for bus service. This market share is so small as to make the marketing of bus service by these carriers extremely difficult. All but the largest of these carriers are virtually unknown outside of the specific communities which they serve.

Exhibit 37 compares the average age of fleet of Interstate carriers and Intrastate carriers. [1/] The combined fleets of the carriers in each category are of roughly equal size: the Interstate carriers have 320 buses; the Intrastate carriers have 367 buses. However, the two types of carrier have significantly different age of fleet averages. For Interstate carriers, the average age of fleet is 4.7 years. This is well below the recommended upper limit of 6.0-7.5 years. For Intrastate carriers, the average age of fleet is 9.0 years, which is above the recommended maximum of 7.5 years. This is a significant difference and is an indication of the difficulty which the Intrastate

---

1/ A.B.C. Coach Line is classified as an Intrastate carrier. While ABC's route extends from Providence to Boston, the service operates via local highways and a majority of passengers are intrastate passengers within Massachusetts.

MASSACHUSETTS INTERCITY BUS STUDY
BUS FLEET UTILIZED TO SERVE MASSACHUSETTS POINTS
BY SIZE OF FLEET
1979

Large Carriers		Number of Buses in Fleet	Percent Of Total	Average Number Of Buses Per Carrier
Greyhound		110		
Plymouth & Brockton		94		
Trailways		75		
Bonanza		62		
Vermont		50		
Peter Pan		49		
Trombly		46		
Sub-total	7 carriers	486	71%	70
Small Carriers				
Gray Line		24		
A.B.C.		17		
Brander		16		
Suburban		16		
Michaud		14		
Interstate		13		
Hub		11		
Bloom		10		
Kinson		10		
Boscom		9		
Concord		9		
Ritchie		9		
Englander		8		
Travel Time		7		
Cape Cod		6		
Hudson		6		
Medeiros		5		
Pierce		4		
Big W		3		
Barre		2		
Bay State		2		
Sub-total	21	201	29%	10
Total	28 carriers	687 buses	100%	

MASSACHUSETTS INTERCITY BUS STUDY
BUS FLEET UTILIZED TO SERVE MASSACHUSETTS POINTS
INTERSTATE VS. INTRASTATE
1979

Interstate Carriers	Number Of Buses In Fleet	Average Age Of Fleet
Bonanza	62	2.7 years
Concord	9	9.7
Greyhound	110	3.5
Michaud	14	3.4
Trailways	75	8.0
Vermont	50	4.4
Sub-Total: 6 carriers	320 buses	4.7 years
Intrastate Carriers		
A.B.C.	17	16.2
Barre	2	18.0
Bay State	2	7.0
Big W	3	18.3
Bloom	10	10.5
Boscom	9	16.8
Brander	16	8.3
Cape Cod	6	15.7
Englander	8	4.2
Gray Line	24	5.5
Hub	11	12.4
Hudson	6	10.4
Interstate	13	8.5
Kinson	10	6.7
Medeiros	5	5.2
Peter Pan	49	3.6
Pierce	4	13.5
Plymouth & Brockton	94	7.0
Ritchie	9	10.4
Suburban	16	11.4
Travel Time	7	18.6
Trombly	46	12.8
Sub-Total: 22 carriers	367 buses	9.0 years
Total 28 carriers	687 buses	7.0 years

carriers are having in replacing buses which become obsolete.

Another measure of the ability of Interstate carriers and Intrastate carriers to renew their fleet is found in the number of buses over ten years old which are operated by carriers in each category. As a group, the Interstate carriers have only 15 buses which are over ten years old. In contrast, the Intrastate carriers have 165 buses, or 45 percent of their fleet, which are over ten years old. This is indicative of a serious inability by the Intrastate carriers to renew their fleets on any sort of a systematic basis.

In the fourth quarter of 1979, the 367 Intrastate buses with an average age of 9.0 years had accumulated a total of 3,303 bus years as a fleet. In 1980, assuming that no new buses were purchased, the average age of fleet would increase to 10.0 and the total number of bus years in the fleet would be 3,670. By combining the data on the age of each bus in the fleets of all 21 Intrastate carriers, as found in Appendix 1, it is possible to compute the number of buses which these carriers should purchase in 1980. To reduce the average age of fleet from 10.0 to 7.5 years, it would be necessary to reduce the number of bus years from 3,670 to 2,750. This could be accomplished if the Intrastate carriers replaced the 45 oldest buses in their fleet. This is equivalent to the replacement of 12 percent of the Intrastate bus fleet. To reduce the average age of the Intrastate bus fleet to the preferred level of 6.0 years, it would be necessary for these 21 carriers to replace 77 old buses, or 21 percent of their fleet, with 1980 model buses. At current prices of $125,000 for a new intercity coach, the purchase of 45 to 77 new buses would require an investment of from five to ten million dollars. Even assuming the purchase of 77 new buses, the Intrastate carriers would still retain in their combined fleet 88 buses over ten years old.

Based on a survey by Tramco in February 1980, the 21 Intrastate carriers had 20 new intercity coaches on order for delivery during 1980. At this level of new bus orders, the average age of the Intrastate fleet will stay the same or slightly increase.

For intercity bus carriers, the key test of financial strength is whether or not each carrier is able to replace obsolete buses with new buses so as to be able to keep the fleet average age within acceptable limits. A key variable which apparently accounts for much of the difference in the average age of fleet of Interstate carriers and Intrastate carriers can be found by comparing Interstate bus fares with Intrastate bus fares. On bus trips over similar distances, there is a dramatic difference in the average fares allowed for interstate trips by the Interstate Commerce Commission (I.C.C.) when compared with the fares allowed on intrastate trips by the Department of Public Utilities (D.P.U.). Intrastate fares average five to seven cents per mile while interstate fares are in the 10 to 14 cents per mile range. The reasons for this two to one difference are examined in Chapter VIII.

V. PUBLIC TIMETABLES OF INTERCITY BUS LINES SERVING MASSACHUSETTS

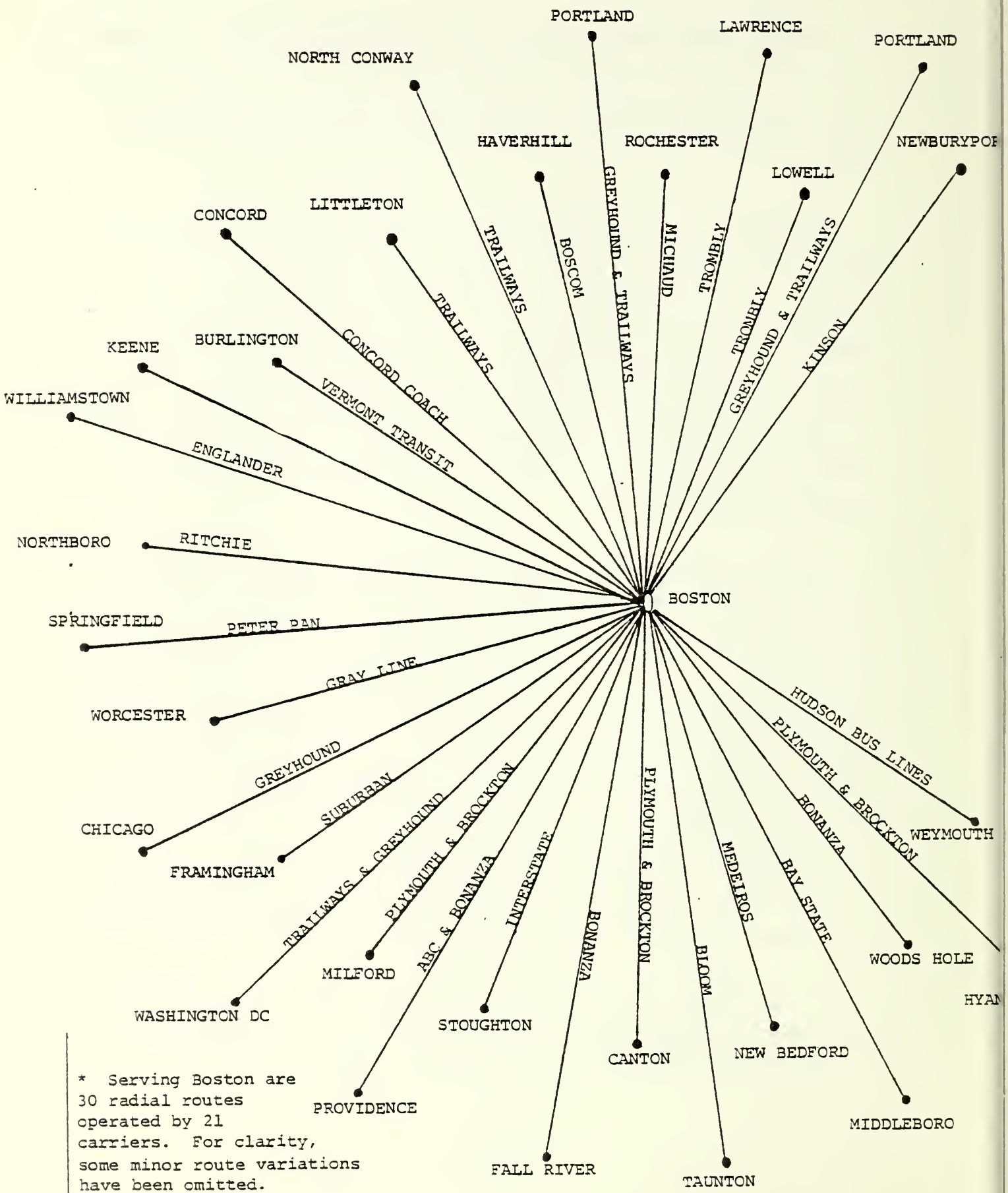
This chapter presents a brief analysis of the network of bus routes operated by the 28 intercity bus lines serving Massachusetts.

Appendix 2, bound separately, presents copies of the public timetables of each carrier for all of their routes to or from points in Massachusetts. To provide comparability with the operating data in Chapters II and III, the timetables shown cover services operated during the fourth quarter of 1979. Since that time, some carriers have implemented various minor schedule changes. The public timetables presented in the Appendix are thus presented primarily as an indication of the routes and communities served rather than as a definitive compilation of specific departure times.

Within Massachusetts, major east-west routes are operated on Route 2 from Boston to Williamstown by Englander Coach Lines, and on the Massachusetts Turnpike from Boston via Springfield to Pittsfield by Greyhound Lines and Peter Pan Bus Lines. Major north-south routes in Massachusetts are operated on Route 7 from New York to Williamstown via Pittsfield by Bonanza Bus Lines and Greyhound Lines, and via Interstate 91 along the Connecticut River Valley through Springfield by Greyhound Lines, Peter Pan Bus Lines, Trailways, and Vermont Transit Lines. The major focus of intercity bus lines in Massachusetts is on routes into and out of Boston. As shown in Exhibit 38, Boston is served by a network of 30 intercity bus routes which are operated by a total of 21 separate and distinct bus lines.

In Massachusetts, it has been the general practice of the Department of Public Utilities to approve operating rights for different carriers on each "spoke" into the "hub" at

PATTERN OF BUS ROUTES SERVING BOSTON*



* Serving Boston are 30 radial routes operated by 21 carriers. For clarity, some minor route variations have been omitted.

Boston.[1/] Behind this policy may in part be an acceptance by the DPU of the proposition that small, locally-based carriers have lower overall operating costs than do the large carriers. However, for the individual passenger seeking information, the fact that the route network into and out of Boston is operated by 21 separate bus lines creates a maze which is sometimes difficult to penetrate.

To obtain a majority of the public timetables shown in Appendix 2, Tramco sent a self-addressed, stamped envelope to the headquarters address of the carrier requesting a timetable. In some cases, a timetable was obtained by picking up a copy at one of the three major bus terminals in Boston. If neither of these two approaches was successful, we telephoned the carrier offices and requested that a timetable be mailed to us. In one case, having been unsuccessful in obtaining a timetable through direct contact with the carrier, we prevailed upon a larger carrier located nearby to obtain a copy of the smaller carrier's timetable. In another case, the carrier did not have a printed timetable or even a typewritten sheet which could be photocopied. To obtain a copy of this carrier's timetable, it was necessary for a Tramco representative to go to the office of the carrier, interview them about their timetable, and write it down in their presence. What should have been a relatively simple project, the assembly of a copy of the timetables of all of the intercity bus lines serving Boston, required approximately one man-week of Tramco staff time. Clearly, this is a level of effort which individuals who are actual or potential intercity bus passengers cannot be expected to invest. The creation of a single source from which the timetables of all intercity bus lines serving Boston can be obtained would appear to be an essential first step in any effort to expand the market share of intercity bus lines in Massachusetts.

1/ In contrast, Vermont Transit is, with one or two minor exceptions, the sole intercity bus line licensed to operate in Vermont.

Exhibit 39 is a map of Massachusetts on which each city and town receiving scheduled intercity bus service has been shaded with diagonal lines. By our count, 165, or 47 percent, of the 352 cities and towns in Massachusetts receive scheduled intercity bus service. The cities and towns receiving, and not receiving, bus service are listed in Exhibit 40. The 165 cities and towns receiving intercity bus service had a combined population in 1975 of 3,900,000, which represented 67 percent of the Massachusetts population of 5,800,000. If, as well, one assumes that residents of 16 cities and towns which are located within the circumference of Route 128, but do not have intercity bus stops within their boundaries, have access to intercity bus service, then the number of Massachusetts residents having direct access to intercity bus service is an estimated 4,700,000, or 81 percent of the population.

From a comparison of the carrier timetables in Appendix 2, one aspect of the interaction between route awards and passenger demand emerges: the granting of multiple carrier awards in a single market to stimulate competition may in fact have the opposite effect. Exhibit 41 compares the bus service between Hyannis and Boston with the bus service between Concord, New Hampshire and Boston. Both Concord, NH and Hyannis are 70 miles from Boston. Between Hyannis and Boston, a single carrier, Plymouth & Brockton Street Railway, is licensed to operate. The P&B schedule provides 43 one-way trips on weekdays. The timetable from Hyannis to Boston is readily memorizable with service every 15 minutes during the morning peak hours and every hour on the hour throughout the remainder of the day.

Between Concord, New Hampshire and Boston, there are three licensed carriers: Concord Coach Lines, Trailways, and Vermont Transit. Combining the timetables of all three carriers, there are 24 one-way trips between Concord, New Hampshire and Boston.

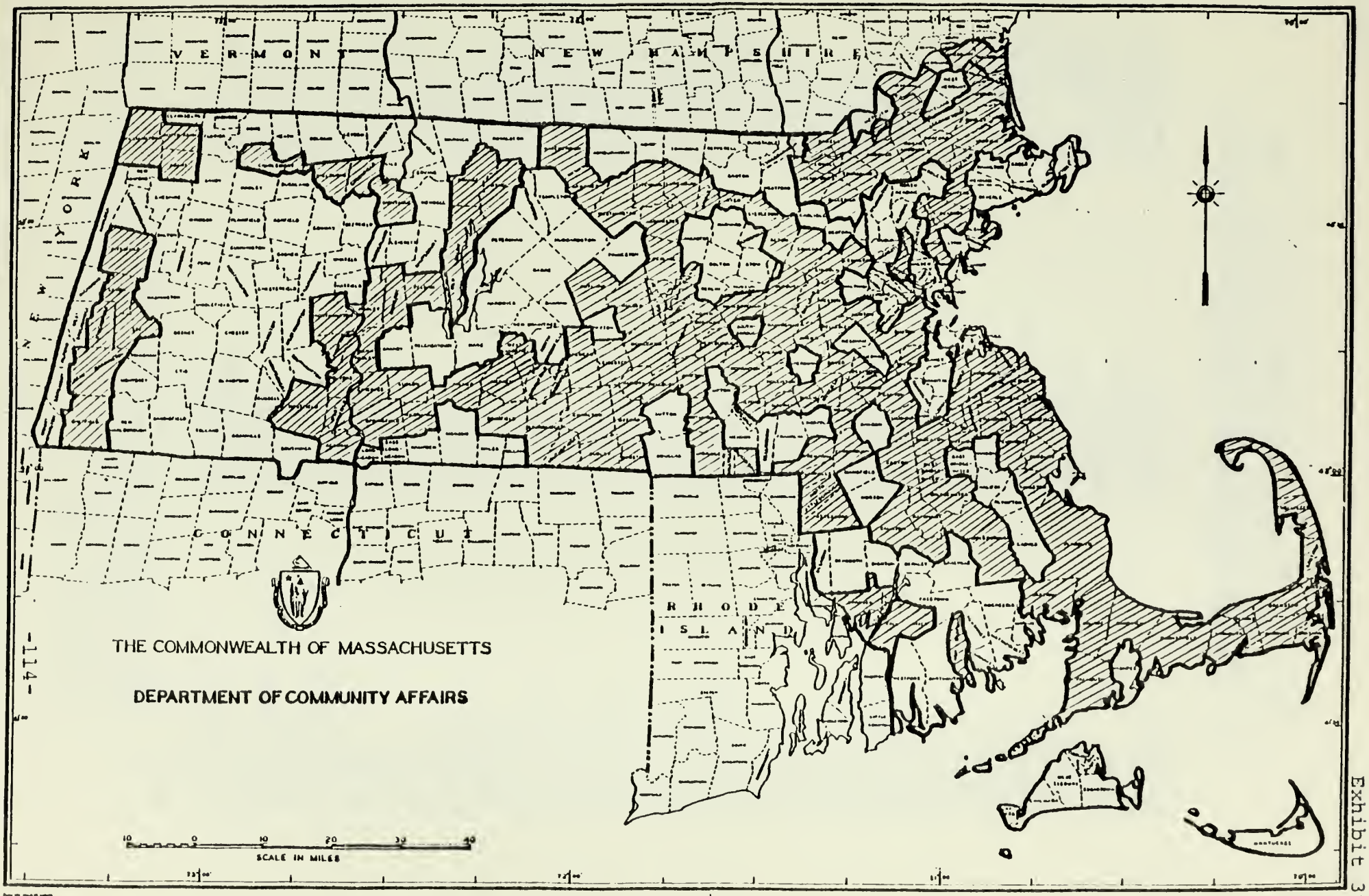

VERMONT
NEW HAMPSHIRE
NEW YORK
CONNECTICUT
RHODE ISLAND
THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF COMMUNITY AFFAIRS
10 0 10 20 30 40
SCALE IN MILES

Exhibit 39

LIST OF MASSACHUSETTS CITIES AND TOWNS

RECEIVING SCHEDULED INTERCITY BUS SERVICE

Abington
Acton
Adams
Agawam
Amesbury
Amherst
Andover
Ashland
Athol
Attleboro
Auburn
Ayer
Barnstable
Billerica
Blackstone
Boston
Bourne
Boxford
Boylston
Brewster
Bridgewater
Brimfield
Brockton
Brookfield
Canton
Charlemont
Charlton
Chatham
Chelmsford
Chicopee
Clinton
Cohasset
Concord
Danvers
Dennis
Dover
Dracut
Dudley
Duxbury
E. Brookfield
Eastham
Easthampton
Easton
Fall River
Falmouth
Fitchburg
Foxboro
Framingham
Gardner
Georgetown
Grafton
Gt. Barrington
Greenfield
Hadley
Hanover
Harwich
Haverhill
Hingham
Holden
Holliston
Holyoke
Ipswich
Kingston
Lawrence
Lee
Leicester
Lenox
Leominster
Lexington
Lincoln
Littleton
Lowell
Ludlow
Lunenburg
Lynnfield
Marlboro
Marshfield
Medfield
Medford
Medway
Middleboro
Milford
Millbury
Millis
Millville
Milton
Montague
Natick
New Bedford
New Salem
Newbury
Newburyport
Newton
No. Adams
No. Andover
No. Attleboro
Northampton
Northboro
Northbridge
Norwell
Norwood
Orange
Orleans
Oxford
Palmer
Peabody
Pelham
Pembroke
Pittsfield
Plainville
Plymouth
Provincetown
Raynham
Rockland
Rowley
Rutland
Salisbury
Sandwich
Saugus
Scituate
Sheffield
Shelburne
Shirley
Shrewsbury
Somerset
South Hadley
Southbridge
Spencer
Springfield
Sterling
Stockbridge
Stoneham
Stoughton
Sturbridge
Sudbury

Note: The number of cities and towns receiving intercity bus service depends upon how the distinction between intercity and commuter bus service is defined, i.e. Milton. In some cases, buses pass through communities but make no scheduled stops, i.e., Marion.

LIST OF MASSACHUSETTS CITIES AND TOWNS

RECEIVING SCHEDULED INTERCITY BUS SERVICE

Swansea
Taunton
Tewksbury
Topsfield
Truro
Uxbridge
Walepole
Wareham
Warren
Wayland
Webster
Wellesley
Wellfleet
W. Boylston
W. Bridgewater
W. Brookfield
W. Springfield
Westboro
Westfield
Westminster
Weston
Westwood
Weymouth
Whitman
Wilbraham
Williamstown
Winchendon
Worcester
Wrentham
Yarmouth

TOTAL = 165

LIST OF MASSCHUSETTS CITIES AND TOWNS

NOT RECEIVING SCHEDULED INTERCITY BUS SERVICE

Acushnet
Alford
Arlington
Ashburnham
Ashby
Ashfield
Avon
Barre
Becket
Bedford
Belchertown
Bellingham
Belmont
Berkley
Berlin
Bernardston
Beverly
Blandford
Bolton
Boxboro
Braintree
Brookline
Buckland
Burlington
Cambridge
Carlisle
Carver
Chelsea
Cheshire
Chester
Chesterfield
Chilmark
Clarksburg
Colrain
Conway
Cummington
Dalton
Dana
Dartmouth
Dedham
Deerfield
Dighton
Douglas
Dunstable
E. Bridgewater
E. Longmeadow
Edgartown
Enfield
Erving
Essex
Everett
Fairhaven
Florida
Franklin
Freetown
Gay Head
Gill
Gloucester
Goshen
Granby
Granville
Greenwich
Groton
Groveland
Halifax
Hamilton
Hampden
Hancock
Hanson
Hardwick
Harvard
Hatfield
Hawley
Heath
Hinsdale
Holbrook
Holland
Hopedale
Hopkinton
Hubbardston
Hudson
Hull
Huntington
Lakeville
Lancester
Lanesboro
Leverett
Leyden
Longmeadow
Lynn
Malden
Manchester
Mansfield
Marblehead
Marion
Mashpee
Mattapoisett
Maynard
Melrose
Mendon
Merrimac
Methuen
Middlefield
Middleton
Monroe
Monson
Monterey
Montgomery
Mt. Washington
Nahant
Nantucket
Needham
New Ashford
New Braintree
New Marlboro
Norfolk
No. Brookfield
No. Reading
Northfield
Norton
Oak Bluffs
Oakham
Otis
Paxton
Pepperell
Peru
Petersham
Phillipston
Plainfield
Plympton
Prescott
Princeton
Quincy
Randolph
Reading
Rehoboth
Revere
Richmond
Rochester
Rockport
Rowe
Roylston
Russell
Salem
Sandisfield
Savoy
Seekonk
Sharon
Sherborne
Shutesbury

LIST OF MASSACHUSETTS CITIES AND TOWNS

NOT RECEIVING SCHEDULED INTERCITY BUS SERVICE

Somerville
Southampton
Southboro
Southwick
Stow
Sunderland
Sutton
Swampscott
Templeton
Tisbury
Tolland
Townsend
Tyngsboro
Tyringham
Upton
Wakefield
Wales
Waltham
Ware
Warwick
Washington
Watertown
Wendell
Wenham
W. Newbury
W. Stockbridge
Westford
Westhampton
Westport
Whatley
Williamsburg
Willington
Winchester
Windsor
Winthrop
Woburn
Worthington

Total = 187

Note: The number of cities and towns receiving intercity bus service depends upon how the distinction between intercity and commuter bus service is defined. See, for example, Braintree.

COMPARISON OF INTERCITY BUS TIMETABLES BETWEEN HYANNIS, MA AND BOSTON, MA VERSUS CONCORD, NH AND BOSTON, MA MONDAY THROUGH FRIDAY

Hyannis-Boston	
Leave Hyannis	Leave Boston
5:15 am	7:00 am
5:30	8:00
5:45	9:00
6:00	10:00
6:15	11:00
6:30	12:00
6:45	1:00
7:00	2:00
7:20	3:00
7:40	4:05
8:00	4:15
8:30	4:35
9:00	4:45
10:00	5:00
11:00	5:25
12:00	5:40
1:00	6:00
2:00	7:00
3:00	8:00
4:00	11:30 pm
5:00	
6:00	
9:00 pm	

Operator: Plymouth & Brockton Street Railway

One-Way Trips = 43

Concord, NH-Boston	
Leave Concord	Leave Boston
4:25 am	1:15 am
5:50	8:15
7:33	9:43
8:00	10:00
8:30	12:30
10:30	1:45
11:43	3:00
12:05	5:15
3:20	5:30
3:30	5:30
5:15	5:45
6:25 pm	7:45 pm

Operators: Concord Coach Lines, Trailways, and Vermont Transit

One-Way Trips = 24

As Exhibit 41 shows, the 12 one-way trips in each direction follow no regular pattern of departure times. Thus, in two markets serving points equidistant from Boston, the route served by a single carrier offers the passenger almost twice as many departures as does the route which is served by three carriers. While more than one variable is involved, it is fairly clear that the granting of an exclusive license in a given market permits the sole carrier to offer more frequencies than is the case when there are multiple competitive route awards.

Similarly, it also appears that the passenger benefits from more service when most or all of the points along a single arterial highway leading into Boston are served by a single carrier. This permits the carrier to assemble full bus loads by making selective scheduled stops at one or more points en route. Although this would seem to be a logical principle, there has been a recent trend in the opposite direction. Taunton, which was formerly served by Bonanza Bus Lines as an intermediate point on its route between Fall River and Boston, is now served as a separate route operated by Bloom Bus Company. In like manner, Middleboro was formerly an en route stop on the Almeida route between New Bedford and Boston. With the demise of Almeida, the New Bedford-Boston route was awarded to Medeiros Bus Company, and a separate Boston-Middleboro route was awarded to Bay State Commuter Corporation. The following table compares the service available before and after this changeover:

	One Way Trips Monday to Friday 2/	
Market	1977	1980
Middleboro-Boston	16	10
New Bedford-Boston	24	18

Thus, the impact of the decision to award two points along the same route to two carriers instead of one has been to reduce the number of frequencies available to passengers by about 30 percent. The reason why this occurs is fairly obvious. Whereas

2/ Source: carrier schedules.

formerly the single carrier could pick up half a load in New Bedford and half a load in Middleboro, the two separate carriers must now wait until they can assemble a load at a single point. This problem is exacerbated during off-peak hours when the passenger demand at any one point is quite low, but a bus able to stop at two or three en route points can pick up enough passengers to justify a trip. With two carriers licensed to operate, the net effect in off-peak hours is to make it necessary to send two half-full buses to Boston, whereas formerly only one bus was required to carry this load. Thus, as should be apparent, whenever it is possible to award all or most of the service along a single major highway to a single carrier, the result will be more frequent service for the passenger, and an improved financial outlook for the carrier. Examples of strong carriers which benefit from this type of route award are Plymouth & Brockton between Hyannis and Boston, and Peter Pan between Springfield and Boston.

VI. COMPARISON OF FINANCIAL RESULTS OF KINSON BUS LINES AND PETER PAN BUS LINES

This study is based upon a full operational and financial study of one large and one small Massachusetts-based intercity bus line. The large carrier selected was Peter Pan Bus Lines of Springfield, Mass; the small carrier selected was Kinson Bus Lines of Georgetown, Mass.

Exhibit 42 in 12 pages, is an unaudited financial statement for Peter Pan Bus Lines, Inc. covering the calendar year 1978. This is the most recent reporting year for which complete data from Peter Pan is available.

Exhibit 43 in 11 pages, is an unaudited financial statement for Basil S. Kinson, Inc. d/b/a Kinson Bus Lines covering the fiscal year ending June 30, 1979. This report, received in January 1980, covers the most recent financial year for which data from Kinson Bus Lines is available.

Exhibit 44, is a summary of the income and expense of Peter Pan Bus Lines for the calendar year 1978. As the exhibit shows, Peter Pan's net income after taxes was $116,000. This income was 2.7% of Peter Pan's 1978 revenues of $4,287, 000. For 1978, Peter Pan achieved a rate of return on average net worth of only 6 percent.

Exhibit 45 lists Peter Pan's percent return on average net worth for the ten year period 1969-1978. With the exception of 1975 when Peter Pan recorded a one time gain from the sale of depreciated used buses, the rate of return earned by Peter Pan did not exceed 10 percent in any year. Peter Pan's average annual rate of return on net worth for the decade was 8 percent. Thus, while among Massachusetts-based intercity bus lines, Peter Pan

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HERBERT W. MENZEL, SR., C. P. A.
STUART D. MEYERS, C. P. A.

To the Stockholders and Board of Directors of
Peter Pan Bus Lines, Inc.

The accompanying balance sheet of Peter Pan Bus Lines, Inc. as of December 31, 1978, and the related statements of income and retained earnings, changes in financial position, and the supplementary schedules of operating and general and administrative expenses for the year then ended were not audited by us; and accordingly, we do not express an opinion on them.

Meyers Brothers Handelsman Menzel & Adeletti
Certified Public Accountants

April 11, 1979

CERTIFIED PUBLIC ACCOUNTANTS
MEYERS BROTHERS, HANDELSMAN, MENZEL & ADELETTI

PETER PAN BUS LINES, INC.
BALANCE SHEET
DECEMBER 31, 1978

(UNAUDITED)

ASSETS

CURRENT ASSETS		
Cash	$ 99,509	
Certificate of deposit	302,306	
Notes receivable - current portion	22,674	
Accounts receivable	396,154	
Accounts receivable - affiliates	22,497	
Income taxes refundable	5,469	
Interest receivable	1,975	
Equipment replacement parts and fuel	46,229	
Prepaid expenses	27,556	
Deferred income tax charges	24,799	
Total current assets		$ 949,168
INVESTMENTS		
Marketable equity securities carried at market value	29,982	
Bonds - at cost (approximate market value $49,000)	45,450	
Investment in affiliate - at equity	6,000	
Total investments		81,432
CAPITAL ASSETS - at cost		
Transportation equipment	3,169,156	
Other equipment	216,672	
Leasehold improvements	35,723	
	3,421,551	
Less accumulated depreciation and amortization	1,308,237	
Total capital assets		2,113,314
OTHER ASSETS		
Cash surrender value of life insurance	65,956	
Employees' advances	3,075	
Notes receivable	48,000	
Franchises	19,569	
Organization expense	466	
Total other assets		137,066
TOTAL ASSETS		$3,280,980

See accompanying notes

LIABILITIES and STOCKHOLDERS' EQUITY

CURRENT LIABILITIES		
Accounts payable	$ 213,511	
Due to officer	9,000	
Unredeemed tickets	46,834	
Employees' funds withheld	2,396	
Income taxes	244	
Accrued wages	31,670	
Accrued profit-sharing and pension funds	61,142	
Accrued liabilities	29,514	
Long-term debt - current portion	167,978	
Total current liabilities		$ 562,289
LONG-TERM DEBT		184,084
DEFERRED INCOME TAX CREDITS		506,664
COMMITMENTS (Note 11)		
STOCKHOLDERS' EQUITY		
Common stock - no par value - authorized 1,000 shares, issued and outstanding 700 shares	70,000	
Retained earnings	1,958,399	
Net unrealized loss on noncurrent marketable equity securities	(456)	
Total stockholders' equity		2,027,943
TOTAL LIABILITIES and STOCKHOLDERS' EQUITY		$3,280,980

PETER PAN BUS LINES, INC.
STATEMENT of INCOME and RETAINED EARNINGS
YEAR ENDED DECEMBER 31, 1978

(UNAUDITED)

CERTIFIED PUBLIC ACCOUNTANTS
MEYERS BROTHERS, HANDELSMAN, MENZEL & ADELETTI

Gross revenues	$4,190,364	
Operating expenses	3,502,292	$ 688,072
Gross profit on garage services		96,913
Net operating revenues		784,985
General and administrative expenses		669,231
Income from operations		115,754
Other income		
Gain on disposal of capital assets	1,948	
Rent	34,821	
Interest	25,407	62,176
Income before income taxes		177,930
Federal and state income taxes		62,357
Net income		115,573
Retained earnings - beginning of year	1,870,826	
Dividends paid	28,000	1,842,826
Retained earnings - end of year		$1,958,399

See accompanying notes

CERTIFIED PUBLIC ACCOUNTANTS
MEYERS BROTHERS, HANDELSMAN, MENZEL & ADELETTI

PETER PAN BUS LINES, INC.
STATEMENT of CHANGES in FINANCIAL POSITION
YEAR ENDED DECEMBER 31, 1978

(UNAUDITED)

Sources of working capital		
From operations		
Net income	$ 115,573	
Charges (credits) not affecting working capital		
Depreciation and amortization	277,880	
(Gain) on disposal of capital assets	(1,948)	
Increase in deferred income tax credits	56,222	
Total from operations	447,727	
Proceeds from disposal of capital assets	23,475	
Increase in long-term debt	379,000	$ 850,202
Uses of working capital		
Increase in investments	30,438	
Acquisition of capital assets	262,156	
Increase in other assets	7,435	
Reduction in long-term debt	256,144	
Dividends paid	28,000	584,173
Increase in working capital		$ 266,029
Summary of changes in working capital		
Increase (decrease) in current assets		
Cash and certificate of deposit	$ 175,136	
Notes receivable	(113,797)	
Accounts receivable	7,813	
Accounts receivable - affiliate	(10,578)	
Income taxes refundable	5,469	
Interest receivable	(236)	
Equipment replacement parts and fuel	7,803	
Prepaid expenses	2,058	
Deferred income tax charges	(359)	
Net increase in current assets		$ 73,309
(Increase) decrease in current liabilities		
Accounts payable	(32,989)	
Accounts payable - transportation equipment	193,504	
Due to officer	(9,000)	
Unredeemed tickets	674	
Employees' funds withheld	(120)	
Income taxes	26,531	
Accrued wages	(7,808)	
Accrued profit-sharing and pension funds	6,738	
Accrued liabilities	(6,704)	
Long-term debt - current portion	21,894	
Net decrease in current liabilities		192,720
Increase in working capital		$ 266,029

See accompanying notes

PETER PAN BUS LINES, INC.
NOTES to FINANCIAL STATEMENTS
DECEMBER 31, 1978

(UNAUDITED)

MEYERS BROTHERS, HANDELSMAN, MENZEL & ADELETTI
CERTIFIED PUBLIC ACCOUNTANTS

1. Significant accounting policies

Regulatory authorities
The Company's revenue rates and certain other activities are regulated by the Interstate Commerce Commission, the Massachusetts Department of Public Utilities, and the Pioneer Valley Transit Authority.

Depreciation
The Company uses straight-line depreciation for financial accounting purposes and principally accelerated depreciation methods for tax reporting. Estimated lives of transportation equipment for financial reporting are ten years, while a seven year life is used for tax reporting.

Amortization of intangible assets
Franchises and organization expense are not being amortized because, in the opinion of the Company, their lives are indeterminate.

Investment tax credits
Investment tax credits are accounted for using the flow-through method which reduces federal income tax expense for the year in which the qualified property is placed in service.

Unredeemed tickets
The unredeemed tickets account in the amount of $46,834 represents the amount of tickets sold which have not been redeemed or utilized at December 31, 1978.

2. Notes receivable

Installment notes receivable 10%, with collateral consisting of buses.	$ 15,969
Noninterest bearing notes from an officer, payable $6,000 annually.	54,000
5% note receivable from an employee.	705
	70,674
Current portion	22,674
Noncurrent portion	$ 48,000

3. Deferred income tax charges
Deferred income tax charges result from timing differences in reporting income from unredeemed tickets.

NOTES to FINANCIAL STATEMENTS - (Continued)
(UNAUDITED)

4. Marketable equity securities

At December 31, 1978, the portfolio of marketable equity securities is carried at lower of cost or market at the balance sheet date. Marketable equity securities had a cost of $30,438 at December 31, 1978. To reduce the carrying amount of marketable equity securities portfolio to market, which was lower than cost at December 31, 1978, a valuation allowance in the amount of $456 was established by a charge to stockholders' equity, representing the net unrealized loss.

5. Investment in affiliate

Investment in affiliate represents a 30% interest in Springfield Bus Terminal Corporation. Cost of this investment is $6,000. Other investors in Springfield Bus Terminal Corporation are as follows:

Name	% Ownership	Cost
Greyhound Corp.	32%	$6,400
Bonanza Bus Lines, Inc.	12%	2,400
Trailways Bus System	26%	5,200

Springfield Bus Terminal Corporation charges each stockholder corporation with its share of the net expenses based on the ratio of terminal ticket sales of each company to the total ticket sales. The Company's share of the cost of operating the terminal for the year ended December 31, 1978 was $47,145.

Included in operating expenses of the Springfield Bus Terminal Corporation are rentals of $90,000 for land and buildings paid to one of the Company's stockholders.

6. Long-term debt

Demand notes payable to bank with collateral consisting of certain transportation equipment, payable $18,000 monthly, plus interest at ¼% above prime (which at December 31, 1978 was 11 3/4%), with variable due dates ranging from five to thirty-two months. The bank has agreed that these demand notes will be refinanced monthly and are callable only in the event of a default in the agreed upon monthly payments. (See Note 14).	$267,362
Installment notes payable to affiliate 7½%, unsecured, payable $2,200 monthly, plus interest to January, 1979.	2,200
8%, unsecured, payable $2,750 monthly plus interest to June, 1981.	82,500
	352,062
Long-term debt - current portion	167,978
Long-term debt	$184,084

Interest expense for the year amounted to $37,523.

MEYERS BROTHERS, HANDELSMAN, MENZEL & ADELETTI CERTIFIED PUBLIC ACCOUNTANTS

NOTES to FINANCIAL STATEMENTS - (Continued)
(UNAUDITED)

7. Deferred income tax credits
Deferred income tax credits result from the net tax effect of timing differences in reporting depreciation and investment tax credits.

8. Stock purchase agreement
The Company has a stock purchase agreement with one of its shareholders to purchase upon death the maximum number of shares permitted under Internal Revenue Code Section 303 at their value for Federal estate tax purposes. The Company has funded its estimated liability hereunder with insurance on the life of the shareholder.

9. Federal and state income taxes
Federal and state income taxes have been reduced by approximately $33,750 of investment tax credits allowed by the Internal Revenue Service. Included in the amount of income tax expense are deferred taxes of $56,600.

The Company has unused investment tax credits for tax reporting purposes only, which may be available to reduce future federal income tax provisions provided sufficient taxable income is earned to permit their utilization and subject to the applicable "carryover" rules and limitations, as follows:

Expiration Date	Amount
1984	$ 6,684
1985	34,019

10. Pension and profit-sharing plans
The Company has a contributory, defined benefit plan which covers all qualified union employees. The total expense of the plan is funded as accrued. Pension fund expense for the year, which included amortization of prior service costs over 10 years, was $15,072. The present value of vested benefits exceed fund assets by approximately $24,800.

The Company also has a profit-sharing plan covering all qualified employees not covered by the union pension plan. This plan has been qualified by the Internal Revenue Service. The total expense for the year amounted to $46,070 which included carryforward allowable deductions.

11. Commitments
Total rent expense for 1978 amounted to $174,803. The minimum rental commitments for the garage and office facilities are as follows:

Year	Amount
1979	$ 90,099
1980	90,099
1981	90,099
1982	90,099
1983	90,099
1984 - 1988	450,495
1989 - 1991	171,049

CERTIFIED PUBLIC ACCOUNTANTS
MEYERS BROTHERS, HANDELSMAN, MENZEL & ADELETTI

NOTES to FINANCIAL STATEMENTS - (Continued)
(UNAUDITED)

11. Commitments - continued
Real estate taxes on the garage property are paid by the Company and amounted to $33,999 in 1978. The Company has options to renew both leases.

The Company has a commitment to lease its bus tires through August 31, 1981 with payments based generally on tire mileage. Expense for 1978 was $67,641.

The Company is also indirectly committed to the lease referred to in Note 5, which lease expires in 1988 but carries an option to renew at that time.

12. Related party transactions
The Company leases its garage facilities from one of its stockholders (See Note 11) and its office facilities from an affiliate (See Note 5).

In addition, the Company borrowed $79,200 on January 13, 1976 and $99,000 on June 19, 1978 from Peter Pan World Travel, Inc., an affiliate, (owned by a trust for the benefit of one of the Company's stockholders). The balances at December 31, 1978 (See Note 6) were $2,200 and $82,500, respectively.

The Company derived revenues of approximately $394,000 and, in addition, paid commissions to Peter Pan World Travel, Inc. of approximately $57,000 in 1978.

There is an account receivable from Peter Pan World Travel, Inc. which represents current billings due.

13. Litigation
In 1975, the Commonwealth of Massachusetts assessed the Company $33,091 for sales and use taxes generally on transportation equipment bought in 1974 and 1975. The Company is presently contesting this additional tax liability. The ultimate outcome of this matter is not presently determinable.

14. Subsequent event
In January, 1979, the Company paid the balance of one demand note payable to bank (See Note 6) in the amount of $83,333. The current and long-term portions of this debt were $33,333 and $50,000 respectively at December 31, 1978.

CERTIFIED PUBLIC ACCOUNTANTS
MEYERS BROTHERS, HANDELSMAN, MENZEL & ADELETTI

MEYERS BROTHERS, HANDELSMAN, MENZEL & ADELETTI CERTIFIED PUBLIC ACCOUNTANTS

SUPPLEMENTARY SCHEDULES

PETER PAN BUS LINES, INC.
SCHEDULE of OPERATING EXPENSES
YEAR ENDED DECEMBER 31, 1978

(UNAUDITED)

MEYERS BROTHERS, HANDELSMAN, MENZEL & ADELETTI CERTIFIED PUBLIC ACCOUNTANTS

Wages - drivers	$1,096,813
Wages - supervision	95,447
Commissions	403,027
Depreciation and amortization	268,806
Drivers' safety expense	4,140
Employees' welfare expense	116,307
Equipment rental	59,708
Gas and oil	341,874
Insurance	235,299
Other shop and garage expense	12,932
Other transportation expense	14,715
Purchased transportation	117,558
Rent	151,604
Repairs and maintenance - labor	162,545
Repairs and maintenance - other	99,085
Tariffs and schedules	15,978
Taxes - payroll	101,190
Taxes - other	21,845
Tickets and baggage checks	29,781
Tires and tubes	67,641
Tolls	65,414
Utilities	20,583
Total operating expenses	$3,502,292

PETER PAN BUS LINES, INC.
SCHEDULE of GENERAL and ADMINISTRATIVE EXPENSES
YEAR ENDED DECEMBER 31, 1978

(UNAUDITED)

MEYERS BROTHERS, HANDELSMAN, MENZEL & ADELETTI CERTIFIED PUBLIC ACCOUNTANTS

Wages - officers	$ 96,639
Wages - office	163,145
Advertising	145,408
Contributions	2,523
Depreciation	9,074
General expense	49,210
Interest	37,523
Office expense	28,104
Professional services	48,875
Rent	23,199
Taxes - payroll	14,359
Telephone	42,437
Uncollectible revenues	5,103
Utilities	3,632
Total general and administrative expenses	$669,231

D. HAROLD SULLIVAN, C.P.A.
ANTHONY J. BILLE, C.P.A.
HAROLD F. HINES, C.P.A.
JAMES A. MINIUTTI, C.P.A.
WILLIAM F. MAYE, C.P.A.
RONALD W. WINTERS, C.P.A.
JOSEPH R. LANDRY, C.P.A.
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To the Board of Directors and Stockholder of
Basil S. Kinson, Inc.

We have reviewed the accompanying balance sheet of Basil S. Kinson, Inc. d/b/a Kinson Bus Lines as of June 30, 1979 and 1978 and the related statements of loss and deficit and changes in financial position for the years then ended in accordance with standards established by the American Institute of Certified Public Accountants. All information included in these financial statements is the representation of the management of Basil S. Kinson, Inc. d/b/a Kinson Bus Lines.

A review consists principally of inquiries of company personnel and analytical procedures applied to financial data. It is substantially less in scope than an examination in accordance with generally accepted auditing standards, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our review we are not aware of any material modifications that should be made to the financial statements in order for them to be in conformity with generally accepted accounting principles.

The accompanying schedules are presented only for supplementary analysis purposes and has been subjected to the inquiry and analytical procedures applied in the review of the basic financial statements, and we are not aware of any material modifications that should be made thereto.

The accompanying financial statements have been prepared on a going-concern basis although the Company has a working capital deficiency and a stockholder's deficiency and has sustained significant net losses in recent years. Continuation of the business as a going-concern appears to depend upon the attainment of profitable operations and/or the securing of additional working capital.

PRELIMINARY DRAFT
FOR
DISCUSSION PURPOSES
ONLY.

December 14, 1979

BASIL S. KINSON, INC.
d/b/a KINSON BUS LINES

BALANCE SHEET, JUNE 30, 1979 AND 1978

-- A S S E T S --	1979	1978
CURRENT ASSETS:		
Cash	$ 26,837	
Accounts receivable - trade (less allowance for doubtful accounts of $5,000)	41,194	$ 43,683
Inventory of parts, tires, etc.	25,000	25,000
Prepaid expenses	14,468	20,353
Total current assets	107,499	89,036
PROPERTY AND EQUIPMENT:		
Real estate	191,170	186,894
Transportation equipment	324,352	743,224
Leased equipment under capital leases	857,931	467,500
Equipment - other	44,389	41,624
Total	1,417,842	1,439,242
Less accumulated depreciation	517,627	590,147
Property and equipment - net	900,215	849,095
OTHER ASSETS:		
Accounts receivable - officer	49,575	16,730
Cash value of life insurance	20,857	17,149
Operating motor carrier rights - unamortized	72,572	75,072
Due from affiliate	22,873	6,486
Total other assets	165,877	115,437
TOTAL	$1,173,591	$1,053,568

See notes to financial statements and Accountants' Review Report.

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BASIL S. KINSON, INC.
d/b/a KINSON BUS LINES

BALANCE SHEET, JUNE 30, 1979 AND 1978

--LIABILITIES AND STOCKHOLDER'S DEFICIENCY--	1979	1978
CURRENT LIABILITIES:		
Cash overdraft		$ 37,349
Notes payable		17,778
Accounts payable	$ 72,197	63,852
Accrued liabilities	181,542	125,554
Current maturities of long-term debt	135,488	218,911
Current obligations under capital leases	348,088	113,934
Total current liabilities	737,315	577,378
DEFERRED GAIN ON SALE OF EQUIPMENT	20,006	11,785
LONG-TERM DEBT (Less current maturities)	193,276	172,993
NON-CURRENT OBLIGATIONS UNDER CAPITAL LEASES	405,196	304,208
Total liabilities	1,355,793	1,066,364
STOCKHOLDER'S DEFICIENCY:		
Common stock - authorized, 500 shares of no par value; issued and outstanding, 100 shares	10,000	10,000
Deficit	(192,202)	(22,796
Stockholder's deficiency	(182,202)	(12,796
	$1,173,591	$1,053,568

See notes to financial statements and Accountants' Review Report.

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BASIL S. KINSON, INC.
d/b/a KINSON BUS LINES

STATEMENT OF LOSS AND DEFICIT
FOR THE YEARS ENDED JUNE 30, 1979 AND 1978

	1979	1978
REVENUES:		
Contract and line-run	$ 930,986	$ 908,469
Charter	230,389	196,875
Total revenues	1,161,375	1,105,344
COST OF OPERATIONS	1,054,468	1,000,152
GROSS MARGIN	106,907	105,192
GENERAL AND ADMINISTRATIVE EXPENSES	120,463	109,927
LOSS FROM OPERATIONS	(13,556)	(4,735)
OTHER EXPENSE (INCOME):		
Interest expense	171,043	155,536
Gain on sale of property and equipment	(24,126)	(20,780)
Loss on rental operations	8,933	5,360
Other expense - net	155,850	140,116
NET LOSS	(169,406)	(144,851)
RETAINED EARNINGS (DEFICIT) AT BEGINNING OF YEAR	(22,796)	122,055
DEFICIT AT END OF YEAR	$ (192,202)	$ (22,796)

See notes to financial statements and Accountants' Review Report.

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STATEMENT OF CHANGES IN FINANCIAL POSITION
FOR THE YEARS ENDED JUNE 30, 1979 AND 1978

	1979	1978
WORKING CAPITAL PROVIDED:		
From (applied to) operations:		
Net loss	$ (169,406)	$ (144,851)
Charges (credits) not requiring the outlay of working capital:		
Depreciation	213,393	232,153
Amortization of operating motor carrier rights	2,500	2,500
Gain on sale of property and equipment	(1,475)	(8,995)
Amortization of deferred gain on sale of equipment	(22,651)	(11,785)
Total from operations	22,361	69,022
Increase in deferred gain	30,872	
Proceeds from sale of property and equipment	286,434	45,200
Increase in non-current obligations under capital leases	480,431	50,000
Increase in long-term debt	260,602	607,606
Decrease in amount due from affiliate		10,525
Total	1,080,700	782,353
WORKING CAPITAL APPLIED:		
Purchases of property and equipment	549,472	182,110
Increase in amount due from affiliate	16,387	
Increase in cash value of life insurance	3,708	6,396
Increase in accounts receivable - officer	32,845	4,707
Reduction of long-term debt	240,319	756,711
Reduction in non-current obligations under capital leases	379,443	119,849
Total	1,222,174	1,069,773
INCREASE (DECREASE) IN WORKING CAPITAL	$ (141,474)	$ (287,420)
CHANGES IN WORKING CAPITAL COMPONENTS:		
Current assets - increase (decrease):		
Cash	$ 21,682	$ 2,392
Accounts receivable - trade	(2,489)	(12,630)
Accounts receivable - other		(90,000)
Prepaid expenses	(5,885)	(17,111)
Total	13,308	(117,349)
Current liabilities - (increase) decrease:		
Cash overdraft	42,504	1,280
Notes payable	17,778	48,134
Accounts payable	(8,345)	9,617
Accrued liabilities	(55,988)	(66,631)
Current maturities of long-term debt	83,423	(91,210)
Current obligations under capital leases	(234,154)	(71,261)
Total	(154,782)	(170,071)
INCREASE (DECREASE) IN WORKING CAPITAL	$ (141,474)	$ (287,420)

PRELIMINARY DRAFT
FOR
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See notes to financial statements and Accountants' Review Report.

BASIL S. KINSON, INC.
d/b/a KINSON BUS LINES

NOTES TO FINANCIAL STATEMENTS
JUNE 30, 1979 AND 1978
(SEE ACCOUNTANTS' REVIEW REPORT)

PRELIMINARY DRAFT
FOR
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1. OPERATIONS

The Company does business as Kinson Bus Lines, and derives its revenues principally from bus operations which include commuter runs, charter services, and contract arrangements with local school systems. The Company's operations are based at Georgetown, Massachusetts, and its primary operating area is Northeastern Massachusetts.

2. SIGNIFICANT ACCOUNTING POLICIES

Inventory of parts, tires, etc. are stated at estimated cost, not in excess of market value of specific items. Obsolete and damaged items are excluded.

Property and equipment are recorded at cost. Depreciation is computed on the straight-line method over the estimated useful lives of the assets. Costs of maintenance and repairs are charged to expense, while costs of significant renewals and betterments are capitalized.

The Company's fleet of vehicles include a substantial number of leased buses. As of June 30, 1979 and 1978 there were 78 and 46 leased buses respectively. The leases of two of these buses are classified as operating leases while the balance of the leases are classified as capital leases. All of the leases expire over the next four years.

Operating motor carrier rights are recorded at cost and are being amortized over a 30-year period.

Investment tax credits are accounted for on the flow-through method as a reduction of federal income taxes in the year in which the credits are available for tax purposes.

3. CAPITAL LEASES

The following is an analysis of the leased equipment under capital leases at June 30:

	1979	1978
Leased equipment	$857,931	$467,500
Less accumulated depreciation	286,270	53,750
Leased equipment under capital leases - net	$571,661	$413,750

3. CAPITAL LEASES (Continued)

The following is a schedule by years of future minimum lease payments under capital leases together with the present value of the net minimum lease payments as of June 30, 1979:

Year ending June 30:	
1980	$288,125
1981	265,848
1982	263,372
1983	152,996
Total minimum lease payments	970,341
Less: Amount representing estimated executory costs	81,462
Net minimum lease payments	888,879
Less: Amount representing interest	135,595
Present value of net minimum lease payments	$753,284

PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY.

4. NOTES PAYABLE

Notes payable consisted of the following at June 30, 1978:

Notes payable - bank, 10% - 13.7% secured by certain transportation equipment	$17,298
Notes payable - other, 10%	480
Total	$17,778

5. LONG-TERM DEBT

Long-term debt consisted of the following:

	June 30, 1979	June 30, 1978
Notes payable:		
International Harvestor Credit Corporation, 17.08%, payable in monthly instalments (aggregating at June 30, 1978), collateralized by a security interest in certain transportation equipment, with final maturity March, 1979		$157,905
International Harvestor Credit Corporation, 18%, payable in monthly instalments (aggregating $1,508 at June 30, 1979), collateralized by a security interest in certain transportation equipment, with final maturity May, 1984	$ 88,955	
Total - forward	$ 88,955	$157,905

5. LONG-TERM DEBT (Continued)

	June 30, 1979	June 30, 1978
Total - forward	$ 88,955	$157,905
Banks, 10% - 17.8%, payable in monthly instalments (aggregating $ at June 30, 1979; $ at June 30, 1978, including interest), collateralized by security interests in various equipment, with varying maturities through May 1, 1981	153,838	134,168
Mortgages payable:		
Bank, 9.5% - 14. %, payable in monthly instalments (aggregating $ at June 30, 1979; $ at June 30, 1978) secured by certain real estate, with varying maturities through May, 1991	106,971	113,518
Other, 7-1/2% - 10%	10,000	10,000
Total long-term debt	359,764	415,591
Less precomputed interest included in notes payable	31,000	23,687
Net	328,764	391,904
Less current maturities	135,488	218,911
Long-term debt (less current maturities)	$193,276	$172,993

6. DEFERRED GAIN ON SALE OF EQUIPMENT

On July 1, 1978, the Company entered into a sale-leaseback transaction involving thirty-four buses. The leaseback of the thirty-four buses is included in the leased equipment described in Note 3. For book purposes, the gain on the sale of the equipment is being deferred and amortized in proportion to the amortization of the leased equipment.

7. OPERATING LEASES

The following is a schedule by years of future minimum rental payments required under operating leases:

Year ending June 30:	
1980	$ 47,499
1981	47,499
1982	15,833
Total minimum payments required	$110,831

PRELIMINARY DRAFT FOR DISCUSSION PURPOSES ONLY.

Rent expense under operating leases amounted to $58,568 and $56,160 for the years ended June 30, 1979 and 1978, respectively.

8. FEDERAL INCOME TAXES

The Company at June 30, 1979 has net operating loss carry forwards of approximately ~~$163,400~~ $323,000, which are available to reduce future taxable income, if any, expiring as follows:

June 30, 1983	$ 11,000
June 30, 1985	152,400
June 30, 1986	160,000
	$323,400

In addition, the Company at June 30, 1979 has investment tax credits of approximately $28,757, available for carry forward against future federal income taxes, expiring as follows:

June 30, 1983	$20,830
June 30, 1984	360
June 30, 1985	7,100
June 30, 1986	467
	$28,757

9. SUBSEQUENT EVENTS

In August, 1979, the Company entered into an agreement with a leasing company whereby they the leasing company agreed to:

1) acquire 3 buses from the company, and
2) sell back these three buses to the Company at a total stipulated price of $

The terms of this agreement require the Company to make payments totaling , payable in instalments of $, including interest over a four-year period.

PRELIMINARY DRAFT
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BASIL S. KINSON, INC.
d/b/a KINSON BUS LINES

SCHEDULE OF COST OF OPERATIONS
FOR THE YEARS ENDED JUNE 30, 1979 AND 1978

	1979	1978
Salaries and wages	$ 392,753	$ 364,810
Payroll taxes	38,751	37,577
Depreciation	213,393	232,153
Gasoline and oil	118,627	106,058
Repairs and maintenance	835	5,945
Equipment rental	56,918	55,124
Insurance	46,727	39,347
Parts, tires, etc.	57,747	71,023
Excise and other taxes	106,015	66,140
Employee benefits	9,196	10,294
Uniforms	2,503	2,741
Tolls	5,236	3,716
Rent	1,650	1,036
Registrations	1,617	1,688
Amortization of operating motor carrier rights	2,500	2,500
Total	$1,054,468	$1,000,152

PRELIMINARY DRAFT
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BASIL S. KINSON, INC.
d/b/a KINSON BUS LINES

SCHEDULE OF GENERAL AND ADMINISTRATIVE EXPENSES
FOR THE YEARS ENDED JUNE 30, 1979 AND 1978

	1979	1978
Salaries and wages	$ 78,230	$ 72,665
Payroll taxes	7,719	7,485
Office supplies and expenses	3,796	3,821
Telephone	7,209	7,367
Utilities	873	588
Professional fees	8,343	7,011
Advertising	754	3,635
Travel	5,235	3,716
Doubtful accounts	1,506	801
Miscellaneous	6,798	2,838
Total	$120,463	$109,927

PRELIMINARY DRAFT
FOR
DISCUSSION PURPOSES
ONLY.

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PETER PAN BUS LINES, INC.
SUMMARY OF INCOME AND EXPENSE
1978

Revenue		
Bus Operations	$4,190,000	
Garage Services-net	97,000	
		$4,287,000
Expense		
Operating Expense	$3,502,000	
General & Administrative	669,000	
		$4,171,000
Income From Operations		116,000
Other Income: Rent, Interest, etc.		62,000
Income Before Taxes		178,000
Taxes: Federal & State		62,000
Net Income		$116,000
As a Percent of Revenue	2.7%	
Retained Earnings 12/31/77	1,871,000	
Dividends Paid	28,000	
		1,843,000
Retained Earnings 12/31/78		$1,958,000
Return on Average Net Worth	6%	

Some totals may not add due to rounding.

PETER PAN BUS LINES, INC.
RETURN ON AVERAGE NET WORTH[a]
1969 - 1978

Year	Total Net Worth[b]	Net Profit After Tax	Percent Return On Investment
1968	$1,093,000	-	-
1969	1,118,000	$ 95,000	9%
1970	1,119,000	50,000	4
1971	1,148,000	58,000	5
1972	1,213,000	91,000	8
1973	1,295,000	121,000	10
1974	1,403,000	121,000	9
1975	1,664,000	289,000[c]	19
1976	1,757,000	121,000	7
1977	1,871,000	142,000	8
1978	1,958,000	116,000	6
Average	$1,422,000	$120,000	8%

a) Computed as Total Net Worth for this year plus the preceding year divided by two.

b) As of December 31 each year.

c) The 1975 figure for Net Profit After Tax includes a one time gain from the sale of 12 used buses at the time of the changeover of the Peter Pan fleet from GMC buses to MCI buses.

Source: Annual Reports, Peter Pan Bus Lines, Inc.

appears relatively prosperous, Peter Pan's average rate of return on investment has been far below that which would be required to attract new investment in the private sector.

Exhibit 46 is a summary of the income and expense of Kinson Bus Lines for the fiscal year ending June 30, 1979. As the exhibit shows, Kinson had a net loss in fiscal 1979 of $169,000 on gross revenues of $1,161,000. Thus, during fiscal 1979, Kinson lost about 14 cents on each dollar of gross revenues. From our observations, these losses were incurred from contract school bus routes and from the scheduled intercity bus route, both of which Kinson has priced at a level which is well below Kinson's fully allocated operating cost. Exhibit 47 is a summary of Kinson's school bus contract for the 1979-1980 school year. Note that the income projection of $1,023,000 for fiscal 1980 is less than the actual income of $1,161,000 in fiscal 1979 despite rising costs. Kinson's charter work, utilizing intercity coaches, we believe has been priced at a level which is above Kinson's fully allocated operating costs.

A major component of Kinson's overall loss is the interest expense of $156,000 incurred in fiscal 1979. Most of this interest expense stems from the fact that nearly all of Kinson's fleet of school buses and intercity coaches, a total of 72 vehicles, have been sold to McGregor-Smith Leasing of Haverhill for leaseback to Kinson Bus Lines. These leases are summarized in Exhibit 48. As the exhibit shows, the weighted average interest costs on these leases is about 18 percent.

Kinson's current and long term obligations under capital leases total $753,000 (Exhibit 43, p.3). The asset value of the equipment leased under capital leases is $858,000 (Exhibit 43, p.2)

Exhibit 46

KINSON BUS LINES
SUMMARY OF INCOME AND EXPENSE
FISCAL 1979

Revenue		
School Contract & Schedule	$931,000	
Charter	230,000	
		$1,161,000
Expense		
Operating Expense	1,054,000	
General & Administrative	120,000	
		1,174,000
Income from Operations		(13,000)
Other Income (Expense): Interest, Rent, etc.		(156,000)
Net Income (Loss)		(169,000)
Retained Earnings (Deficit) 6/30/78		(23,000)
Retained Earnings (Deficit) 6/30/79		$(192,000)

Basil S. Kinson, Inc.
Estimate of Income
1979-1980 School Year

Masconomet Regional High School			
	Contract	289,000	
	Athletic & Field Trips	25,000	
			314,000
Newburyport			
	Contract	190,000	
	Athletic & Field Trips	15,000	
			205,000
Georgetown			
	Contract	96,000	
	Athletic & Field Trips	4,000	
			100,000
Boxford			
	Contract	75,000	
	Athletic & Field Trips	5,000	
			80,000
Topsfield			
	Contract	53,200	
	Athletic & Field Trips	5,000	
			58,200
Brookwood Academy			
	Contract		14,000
Pingree School			
	Contract		9,000
Ipswich			
	Contract		8,500
	Sub-total: School Bus		783,700
	Intercity Coaches - Schedule	90,000	
	Charters	150,000	
			240,000
	TOTAL		1,023,700

SUMMARY OF VEHICLE LEASES IN EFFECT DECEMBER 1979

BETWEEN MC GREGOR-SMITH LEASING OF HAVERHILL

AND KINSON BUS LINES OF GEORGETOWN, MA

Item	Lease A	Lease B	Lease C	Lease D	Lease E	Lease F	Totals
McGregor-Smith Unit No.	1154-1155	1303-1307	1308-1322	1350-1351	1352-1353	1687-1732	
Type of Vehicle(s)	Two 1979 P8M-4905A Intercity Coaches	Five 1977 65 Pax School Buses	15 1977 71 Pax School Buses	Two Chevrolet Transettes	Two Chevrolet Busettes	46 Various Intercity & School Buses	72 Vehicles
Date of Lease	7 Oct 1976	20 May 1977	20 May 1977	18 Jul 1977	18 Jul 1977	29 Jun 1978	
Term of Lease	5 Years	5 Years	5 Years	3 Years	3 Years	5 Years	
Initial Equipment Value	$170,000	$79,250	$245,250	$30,000	$19,400	$480,430	1,024,330
Purchase Price at the End of the Lease	$44,000	$2,500	$7,500	$400	$400	$9,200	64,000
Monthly Payments By the Lessee	60 @ $4,208	50 @ $2,710 (Skip 10)	50 @ $8,328 (Skip 10)	30 @ $1,488 (Skip 6)	30 @ $987 (Skip 6)	50 @ $15,300 (Skip 10)	33,021
Additional Payments Furnished by Lessor:							
1. Sales Tax	8,500	3,960	12,260	1,500	970	24,020	51,210
2. Excise Tax-Month 1	10,100	4,710	15,100	1,780	1,150	11,730	
13	6,730	3,140	10,070	1,190	770	7,090	
25	4,490	2,090	6,710	790	510	5,130	
37	1,760	1,310	4,200	500	320	3,170	
49	1,120	520	1,680	200	130	3,170	
Excise Tax Subtotal	24,200	11,770	37,760	4,460	2,880	30,290	111,360
Estimated Value of Loan at Outset	146,600	86,595	268,890	33,330	21,410	519,600	1,076,425
Approximate Annual Interest Rate	24%	19%	19%	20%	22%	16%	Average 18%
Late Payment Penalty	$20/day	$75/day		$10/day	$10/day		
Lease in Name of	BSK Inc & BSK Individ.	BSK Inc & BSK Individ.	BSK Inc & BSK Individ.			BSK Inc & BSK Individ.	

Exhibit 4

Kinson thus has an equity value of about $1,500 in each of the 72 buses which are being leased from McGregor-Smith. Similarly, the net value of Kinson's equipment less depreciation, and excluding real estate is $709,000 while the current and long term obligations under these leases is $753,000.

Exhibit 49 summarizes Kinson's earnings during the past four years. From 1976 to 1979, Kinson's losses averaged $85,000 per year. During the same period, Kinson's retained earnings were reduced from $145,000 to a deficit of $192,000. At the present time, therefore, Kinson Bus Lines is essentially bankrupt. Should Kinson encounter any disruptions in current cash flows which make meeting the monthly lease payment of $33,000 to McGregor-Smith impossible, McGregor-Smith could be expected to exercise its right to repossess the buses, leaving Kinson without the vehicles needed to operate its school bus contracts and scheduled intercity routes.

Taken together, the common thread linking the financial performance of Peter Pan Bus Lines and Kinson Bus Lines is the fact that the cost of the major components of intercity bus service - buses, labor, fuel and parts - have increased at a rate which has exceeded the rate of fare increases allowed by the Department of Public Utilities. As a result, all but the most fortunate carriers have found the growth in their expenses is exceeding the growth in their revenues.

The costs of intercity bus operations are essentially linear. That is, there are few if any economies of scale which can be achieved by assembling a larger and larger fleet of buses. In fact, there appear to be some diseconomies of scale. This in part explains why the industry is characterized by a large number of relatively small carriers.[1/]

1/ See especially Commonwealth of Massachusetts, Mass Transportation Commission, Mass Transportation in Massachusetts, Boston, July 1964, Appendix A, Bus Industry Cost Study, pp. 120-133.

Basil S. Kinson, Inc.
Summary of Income and Expense
Fiscal 1976 - Fiscal 1979

Fiscal Year	Income	Expense	Profit or (Loss)	Retained Earnings (Deficit) at End of Year
1975				$145,000
1976	$1,028,000	$1,016,000	$12,000	157,000
1977	1,026,000	1,061,000	(35,000)	122,000
1978	1,105,000	1,250,000	(145,000)	(23,000)
1979	1,161,000	1,330,000	(169,000)	(192,000)
Percent Increase				
1976 - 1979	13%	31%		
Average Annual Percent Increase				
1976 - 1979	4.2%	9.5%		

We estimate that the cost of operating an intercity coach in Massachusetts in 1978 was about $1.00 per mile. Exhibit 50 separates these costs in detail based on data furnished to us by a major intercity carrier. By late 1979 or early 1980, with inflation, we estimate that the cost of operating an intercity coach in Massachusetts was $1.20 to $1.25 per bus mile. Interstate charter rates at the present time for lavatory equipped intercity coaches are about $1.40 to $1.50 per mile.

Reduced to simplest terms, the basic management decision facing intercity bus lines is this: can the carrier afford to replace an old bus with a new bus so as to offset an otherwise undesirable increase in the average age of fleet. This decision must be evaluated in the context of new bus costs and prime interest rates which have been rapidly escalating in the past few years. Lavatory-equipped intercity coaches now cost in excess of $125,000; the prime interest rate now stands at 18 percent or higher. Taken together, these two factors present a formidable financial obstacle for all but the most solvent intercity bus lines.

Before the purchase of a new bus can be justified, it is first necessary to compensate carriers for their cost of capital and to provide equity owners with returns at least equal to the return on investment in enterprises having comparable risks. That is, the return on investment earned by the carrier must be sufficient for the carriers to maintain their credit and to attract capital.

In 1971, in the Domestic Passenger Fare Investigation Phase 8 - Rate of Return, the Civil Aeronautics Board found that the reasonable overall rate of return for airlines was 12 percent based on

Estimated Operating Cost
For Intercity Bus Service
By Category In 1978

Operating Expenses	Cents Per Mile	
Fuel	8.4¢	
Insurance	3.3	
Oil, Grease, Antifreeze, Tires, Licenses	1.5	
		13.2¢
General Maintenance		
Radiators, engines, transmissions, alignments brakes, painting	11.3	
Depreciation	6.3	
Coach supplies & amenities; shop rent	4.6	
Washing and appearance	4.4	
		26.6
Drivers Wages and Benefits		
Wages, payroll taxes, health insurance	29.4	
Uniforms, room rent, meals	2.6	
		32.0
General and Administrative		
Salaries, including management office, ticket sales and express	7.0	
Office expenses	5.6	
Advertising and Promotion	4.4	
		17.0
Interest		8.0
Capital Repayment		6.4
		103.2 c.p.m

Source: Major intercity bus operator as reported to Tramco, Inc.

the weighted average cost of debt and equity capital. At that time, the airlines in question were assumed to have financed their debt on the basis of 60 percent debt and 40 percent equity. The cost of debt was assumed to be 7.25 percent and the cost of equity 20 percent.[1/]

In 1978, the prime rate was about 9 percent.[2/] At that time, Peter Pan's capital was made up of about 40 percent debt and 60 percent equity. If one assumes that the rate of return required to attract additional equity is about 20 percent, then Peter Pans' weighted average cost of capital can be computed as:

(40% debt x 9%)
+ (60% equity x 20%) = 15.6%

This is the rate of return which Peter Pan should have earned in 1978 in order to maintain credit and attract new capital.

In 1978, Peter Pan's average net worth was $1,914,000 (Exhibit 45). To earn a 15.6 percent return on investment, Peter Pan's net profit after tax in 1978 should have been $298,000.[3/] Peter Pan's actual 1978 net profit was $116,000, meaning that there was a revenue shortfall of $182,000 compared to the amount needed to maintain credit and attract new capital.

Peter Pan's gross revenues in 1978 were $4,287,000 (Exhibit 44). To increase revenues by $182,000, it would have been necessary for Peter Pan to increase prices by 4.2 percent above 1978 price levels.[4/]

1/ Civil Aeronautics Board, Domestic Passenger Fare Investigation Phase 8 - Rate of Return, Docket No. 21866-8 (Order Serial No. 71-4158), Washington, D.C., April 9, 1971 as reported in Aviation Law Reporter, pp. 15076-15086, Number 507, June 7, 1971, Commerce Clearing House, New York.

2/ Source: Federal Reserve Bank of Boston.

3/ Computed as 15.6% of $1,914,000.

4/ Computed as $182,000 divided by $4,287,000.

In 1979, Kinson Bus Lines had assets, both debt and equity, worth $992,000 (Exhibit 43; page 3). Assuming Kinson's average cost of capital to be 18 percent (from Exhibit 48), then Kinson should have earned a net profit of 18 percent of $992,000 or $178,000. In fact, Kinson had a net loss of $169,000 in 1979, for a revenue shortfall of $347,000. To increase revenues by $347,000 in 1979, it would have been necessary for Kinson to increase prices by 30 percent about 1979 price levels.[1/] Since approximately 75 percent of Kinson's forecast revenues for fiscal 1980 are from contract school bus service, this would appear to be the prime area in which price increases have not kept up with increases in operating costs. As shown in Exhibit 49, during the period 1976-1979, Kinson's operating costs increased by an average annual rate of 9.5 percent but revenues increased by an average of only 4.2 percent per year.

Assuming that Peter Pan has been one of the more energetic intercity carriers in implementing price increases to offset the cost of inflation, while Kinson has fallen far behind in this respect, we would expect to find that other Massachusetts based carriers would need to implement price increases of from 4 percent to 30 percent.

If an optimum capital structure for intercity bus carriers is assumed to be 60 percent debt and 40 percent equity, and we assume that the prime interest rate will remain at about 18 percent for the remainder of 1980, then the return on investment requried by intercity bus lines can be computed as follows:

60 times .17
plus 40 times .20 = 19 percent.

This assumes that the return necessaryto attract equity investors

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1/ Computed as $347,000 divided by $1,161,000.

is 20 percent. If the prime interest rate remains at 18 percent for a prolonged period of time, then the return required to attract equity investors may go higher than 20 percent.

Based on present financing costs, we estimate the return on investment which intercity bus lines need to earn so as to be able to maintain their credit and attract new capital as required to be not less than 18 percent. Carriers which do not earn this rate of return on investment will face increasing difficulty in acquiring new buses needed to replace buses which have become obsolete.

VII. THE REGULATORY ENVIRONMENT AFFECTING INTERCITY BUS LINES IN MASSACHUSETTS

All but one of the 28 intercity bus lines serving Massachusetts have rights to carry passengers in at least one intrastate market. These 27 carriers have been granted operating rights within Massachusetts by the Massachusetts Department of Public Utilities. The one carrier not regulated by the D.P.U. is Concord Coach of Concord, New Hampshire, which operates nonstop between Boston and New Hampshire points, and does not carry any interstate passengers. Exhibit 51 on the next page lists sample intrastate markets which are served by interstate bus lines.

As a general rule, the operating authorities of the various carriers to serve specific routes have tended to remain relatively fixed in recent years. The two exceptions are:

- the transfer to an intrastate carrier of intrastate markets which were formerly served by an interstate carrier as part of a longer route; and,
- the reassignment of routes to new carriers following the failure of an incumbent carrier.

A recurring complaint of some interstate carriers is the fact that the intrastate bus fares allowed by the D.P.U. are much less, by a factor of as much as two to one, than the interstate fares which are approved by the Interstate Commerce Commission (I.C.C.). The marked disparity between the interstate fares which are granted by the I.C.C. and the intrastate fares allowed by the D.P.U., in markets of similar length, is illustrated in Exhibit 52. As the exhibit shows, the average intrastate fare in seven selected markets is 6¢ per mile while the average interstate fare between Boston and points which happend to involve crossing a state line is 11¢ per mile. This is true even though

SAMPLE INTRASTATE MARKETS SERVED BY INTERSTATE CARRIERS

Interstate Carrier	Intrastate Market Served
A.B.C.	Attleboro - Boston
Bonanza	Fall River - Boston
Greyhound	Pittsfield - Boston
Michaud	Amesbury - Boston
Trailways	Haverhill - Springfield
Vermont Transit	Gardner - Boston

COMPARISON OF ONE-WAY BUS FARES
TO OR FROM BOSTON
IN INTRASTATE AND INTERSTATE MARKETS
1979

Approximate One-Way Mileage	Intrastate Market	One Way Fare	Interstate Market	One Way Fare
40	Newburyport	$ 2.25	Nashua, NH	$ 5.85
50	Fall River	3.05	Providence, RI	4.80
60	Gardner	3.60	Tiverton, RI	6.85
70	Hyannis	4.10	Concord, NH	8.25
90	Springfield	5.30	Keene, NH	8.80
110	Northampton	6.50	Portland, ME	12.45
150	Pittsfield	9.15	New Haven, CT	17.55
Total Fare for Seven Markets		$33.95		$64.55
Total Mileage for Seven Markets		570		570
Average Fare Per Mile		6.0¢		11.3¢

it seems highly probable that the cost of operating routes of equal length are almost identical. As a result of this disparity, interstate carriers find it necessary to use interstate revenues to offset losses in low fare intrastate markets. In some cases, carriers have made the decision to withdraw altogether from an intrastate market as a way of ending recurring losses. In such cases, the intrastate route has been transferred to a smaller intrastate carrier, a carrier generally less well financed than the interstate carrier which they replace. Two relatively recent examples of such a changeover were the transfer from Michaud to Kinson of the Newburyport-Boston route, and the transfer to Bloom of the Taunton-Boston route which formerly was served as an intermediate stop on Bonanza's Fall River-Boston route.

One relatively recent example of the reassignment of an intercity bus route occurred when Wellesley Fells Bus Line became financially unable to continue service on its Framingham-Boston service via Route 9. The operating certificate for this service was transferred to a new carrier, Suburban Bus Lines of Framingham. Similarly, when Almeida Bus Lines of New Bedford went bankrupt, various portions of the former Almeida route system were transferred to Bay State, Bonanza, Medeiros and Plymouth & Brockton.

The Department of Public Utilities, under Chapter 159 of the General Laws of the Commonwealth of Massachusetts, is charged with the regulation of common carriers operating within Massachusetts. Included in the D.P.U.'s responsibilities is the power to investigate proposed changes in carriers' fares, to disapprove of them if they are found to be unreasonably high or low, and if necessary to substitute its own determination of just and reasonable fares which may be charged for intercity bus services.

The process of setting the rates which may be charged by intercity bus lines requires that a balance be struck between the passenger's interest in obtaining reliable service at the lowest practical price, and the interest of the owners of the bus line in receiving a fair rate of return on their investment.

The requirement that a fair rate of return be earned is not an abstract goal, but rather a practical necessity. If a carrier's earnings are sufficient to meet operating costs but do not cover the cost of capital, the carrier will find that it is unable to finance the purchase of new buses. At first, this will not appear to be a major problem, but gradually, as the average age of the carrier's fleet goes beyond seven years, their buses will become less and less attractive to passengers. As some passengers elect to utilize other, better financed modes of travel, average passenger loads will decline and the financial problems being experienced by the carrier will escalate. This is essentially the process which was experienced by Almeida Bus Lines prior to its bankruptcy. Thus, to maximize ridership, it appears necessary to offer not only attractive fares, but also attractive buses. To do this, intercity bus lines need to be assured of a rate of return which will permit the replacement of the oldest buses in their fleets on a regular and predictable basis.

In Massachusetts, the regulatory environment which has been created by the D.P.U. over the past decade has tended to discourage intrastate bus lines from replacing their fleets at the rate required to attract and retain additional ridership. Three factors appear to have contributed to this situation:

- The reliance by the D.P.U. on the operating ratio concept rather than rate of return on investment as a means of evaluating the financial results of a carrier.

- The attention focused by the D.P.U. on affiliated companies owned by intercity bus lines, without adoption by the D.P.U. of clear standards governing the operation of such affiliated companies.

- The inordinate delay involved in the processing of an application for a fare increase brought about by the almost automatic suspension of each application for a ten month period pending review by D.P.U. staff.

The subjective result is that an adversary proceeding has been created out of what is essentially a regulatory procedure. The D.P.U. has become the champion of the passenger's interest in obtaining reliable service at the lowest possible fare. Those carriers having the staff and resources which are necessary for the prosecution of a well developed rate case are sometimes able to present a case to show that the rates which the D.P.U. has traditionally been willing to approve, while sufficient to cover operating costs, are insufficient to cover the cost of capital. With both inflation and the cost of money now progressing at double digit rates, many carriers find that they are hard-pressed to finance the cost of the new buses they need.

The operating ratio concept compares expenses as a percent of revenue. Thus, a carrier with an operating ratio of 96 percent would have spent 96¢ to earn $1.00 of revenue. Taken alone, an operating ratio of 96 percent provides no information as to whether an operating profit of 4¢ per dollar of revenue would be sufficient to repay the carrier's cost of capital.

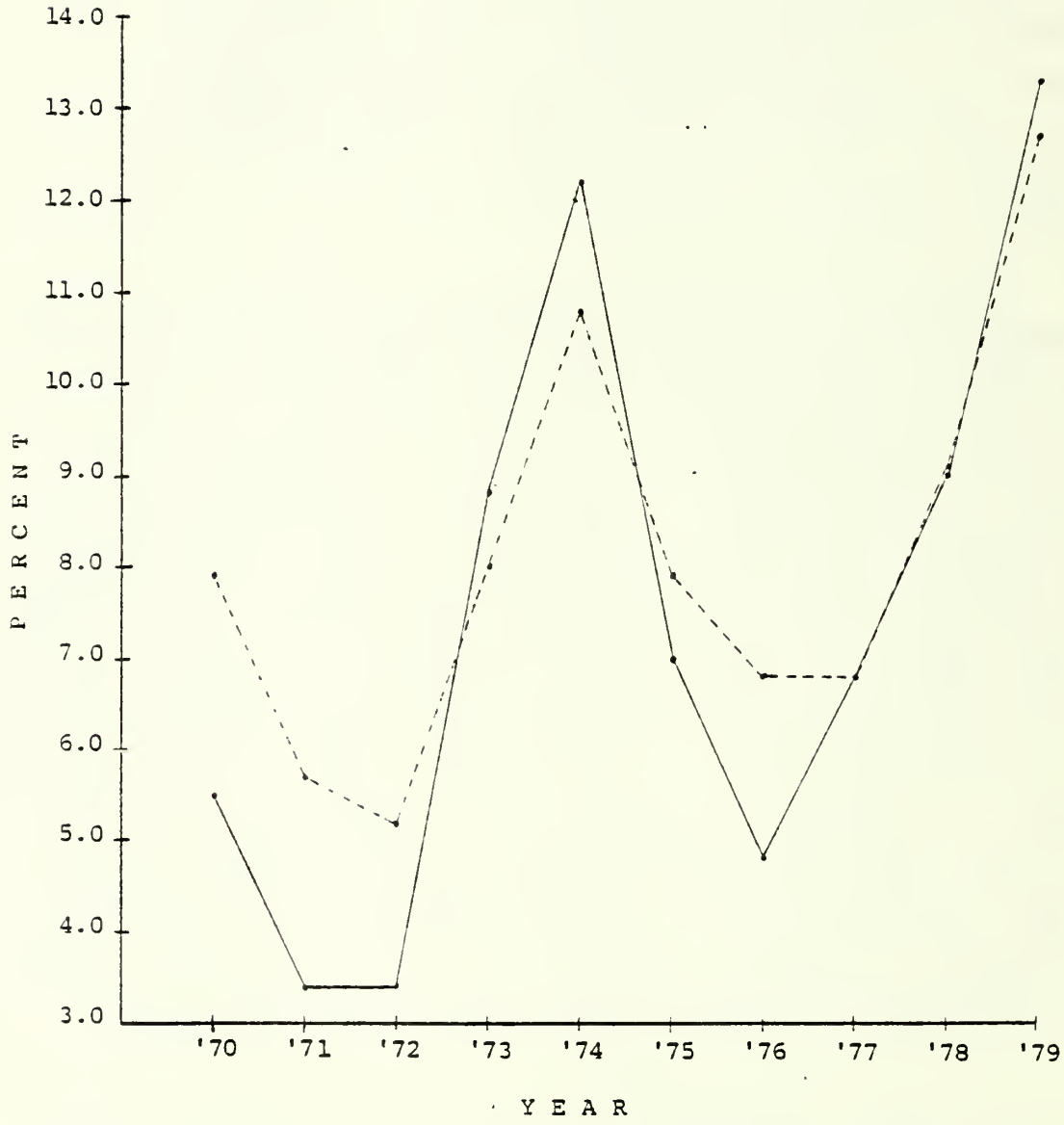
The use of the operating ratio concept as a measure of a carrier's financial results dates from the era of the street railways. Prior to 1950, when bank interest rates were five percent or less, an operating ratio of 96 percent was generally

considered adequate to repay the cost of the funds required for the purchase of new buses. From the early 1950's to the early 1970's, the prime interest rate rose from about five percent to about ten percent. Since the early 1970's, the prime interest rate has risen from about ten percent to about 18 percent. Exhibit 53 compares the prime interest rate and the inflation rate for the period 1970-1979. As the prime interest rate has risen from the five percent area to the 15 percent area, the operating ratio concept has become less and less useful as a means of measuring the financial results of an intercity bus line.

The D.P.U., in a 1977 decision on a request for a fare increase by Almeida Bus Lines, discussed at some length the advantages and disadvantages of the operating ratio concept.[1/] In that decision, the D.P.U. concluded that the operating ratio concept should be applied jointly together with an analysis of the rate of return which the carrier would earn if the requested fare increase were granted. Since 1976, both the prime interest rate and the inflation rate have doubled from about 8 percent to about 16 percent. In Tramco's opinion, as long as the prime rate and the rate of inflation continue to be expressed as double digit numbers, rate of return on investment should be the principal criterion utilized in evaluating a carrier's financial results, and the operating ratio should be relegated to a strictly secondary status. Assurance of a rate of return on investment at least equal to the cost of capital is really the only reliable means of assuring that a carrier will be able to replace buses as they become obsolete.

1/ Department of Public Utilities, "Investigation by the Department on its own Motion as to the propriety of rates and charges set forth in M.D.P.U. No. 47 filed with the Department on October 18, 1976, to become effective November 22, 1976 by Almeida Bus Lines, Inc.", D.P.U. Docket No. 18936, Boston, August 5, 1977.

COMPARISON OF PRIME INTEREST RATE
AND INFLATION RATE
1970 - 1979



--- Prime Interest Rate

—— Inflation Rate

Source: Federal Reserve Bank of Boston

Related to the question of the D.P.U.'s past reliance on the operating ratio concept is the question of affiliated companies which are, in some cases, operated by intercity bus lines.

In a March 1977 decision on an application for a fare increase by Peter Pan Bus Lines, the D.P.U. examined at some length the question of companies which are owned by intercity bus lines.[1/] Peter Pan Bus Lines is owned by three principal stockholders:

- Peter Picknelly, Jr. - 24%
- Jennie Picknelly - 25%
- Estate of Peter Picknelly, Sr. - 51%

Jennie Picknelly is the widow of Peter Picknelly, Sr., and the mother of Peter Picknelly, Jr. Jennie Picknelly and Peter Picknelly, Jr., are, respectively, Chairman of the Board and President of Peter Pan Bus Lines.

The maintenance garage in Springfield in which the Peter Pan bus fleet is based and maintained is owned by Peter Picknelly, Jr., and leased to Peter Pan Bus Lines. The rent paid is sufficient to amortize the cost of construction over a 20 year period. In addition, the lessee, Peter Pan Bus Lines, pays the cost of real estate taxes, insurance, maintenance, and utilities.

1/ Department of Public Utilities, "Investigation by the Department on its own motion as to the propriety of the rates and charges set forth in M.D.P.U. No. 39 filed with the Department on April 27, 1976 to become effective June 1, 1976 by Peter Pan Bus Lines, Inc.", D.P.U. Docket No. 18706, Boston, March 30, 1977.

Similarly, the bus terminal in Springfield is owned by Peter Picknelly, Jr., and leased to the Springfield Bus Terminal Corporation. The ownership of the Springfield Bus Terminal Corporation is made up of the four major carriers serving Springfield:

- Greyhound 32%
- Peter Pan 30%
- Trailways 26%
- Bonanza 12%

The above ownership shares reflect roughly the percent share of ticket sales volume of each of the four carriers at Springfield. As is the case with the maintenance garage, the rent paid by the lessee covers only the cost of terminal construction amortised over a 20 year period. The lessee also pays for real estate taxes, insurance, maintenance, and utilities.

The Estate of Peter Picknelly, Sr., of which Peter Picknelly, Jr. is the trustee, also owns Peter Pan World Travel, Inc. Peter Pan World Travel is a travel agency which sells airline tickets, cruise tickets, and bus tickets at three retail locations in the greater Springfield area. In addition, Peter Pan World Travel markets the extensive and varied program of package tours offered by the Peter Pan organization. To operate the land portion of these tours, Peter Pan World Travel charters buses from Peter Pan Bus Lines at standard charter rates.

In their 1977 opinion, the D.P.U. was concerned with the question of whether or not the arrangements between Peter Pan Bus Lines and Peter Picknelly, Jr., the Springfield Bus Terminal Corporation and Peter Pan World Travel were valid arms length relationships, or instead served as mechanisms for the transfer of funds out of Peter Pan Bus Lines and into the other entities. There are a variety of reasons for setting up the garage and the terminal under separate ownership. One such reason is the

fact that under the operating ratio methodology, until recently preferred by the D.P.U., the cost of leases is accepted as a valid operating expense. Interest charges, however, were considered as a below the line non-operating expense.

Following a full examination of these relationships, the data presented by the D.P.U. leads to the following conclusions:

- The cost to Peter Pan Bus Lines of the present garage lease is probably no more than the cost to Peter Pan of owning its own garage, and is probably less than the cost of leasing a garage from an independent landlord.

- The cost to Peter Pan Bus Lines of the services which it receives through the Springfield Bus Terminal Corporation, at about 15 percent of ticket sales, is the same as Peter Pan's terminal costs at other terminals where Peter Picknelly does not have an ownership role, and is less than the cost charged to Peter Pan for the use of the Trailways Terminal in Boston where the facilities available are far from satisfactory.

- The charter rate which Peter Pan World Travel pays to Peter Pan Bus Lines for the use of Peter Pan buses is the same rate paid by other agencies which charter Peter Pan buses.

Thus, while it is important for the regulatory agency to be furnished with a clear statement covering the various affiliated companies in which each carrier has an interest, it is probably sufficient for the carrier to demonstrate that the rates which the carrier is charged by its affiliates are the same as the carrier would have to pay in an independent transaction.

The very substantial benefits which Peter Pan Bus Lines receives through its affiliated companies should not be overlooked: Peter Pan has available for its use a spacious and well equipped maintenance garage, and the only modern full service bus terminal in Massachusetts. Following the centralization of the services of all four major carriers at the Springfield Bus Terminal these carriers have enjoyed a fairly steady growth in intercity passenger demand.

Nonetheless, it should not come as a great surprise that Peter Pan has made no special efforts to promote scheduled intrastate bus services. With intrastate fares set at 6¢ per mile, interstate fares set at 11¢ per mile, and tours providing an opportunity to earn commissions on land arrangements such as lodging and meals, the prudent operator will invest the majority of his time and assets in the promotion of those product lines with the best profit potential: tours, charters, and interstate services. Should intrastate scheduled services offer the same potential return on investment as do these other services, the carriers could be expected to promote intrastate services with the same energy and imagination which now characterizes their promotion of tours, charters and interstate services.

In addition to questions involving the operating ratio and the carriers' affiliated companies, bus lines serving Massachusetts are concerned with the length of time which the D.P.U. requires to process an application for a fare increase. When a carrier presents a fare increase application, the D.P.U. almost automatically suspends the proposed new fares for a 10 month period. This 10 month delay is necessary to compensate for the fact that the D.P.U. has limited internal staff resources and must assign first priority to applications presented by the metered utilities. Applications from electric, gas, and telephone utilities invariably involve much larger amounts of money than do applications from intercity bus lines. By statute, metered utility cases must be decided within six months.

During periods of high inflation, these historic delays place the carriers in an unenviable sort of Catch 22 situation. The carrier, based on an internal analysis of its costs, may present an application for a 10 to 15 percent fare increase. In the recent past, during the 10 month period which must elapse before the D.P.U. can arrive at a decision, the carrier could experience cost increases of 10 to 15 percent due to the impact of inflation on the cost of wages, parts, and diesel fuel. In such cases, the carrier will find that by the time the D.P.U. approves its application, the carrier's operating costs will have increased by an amount equal to or greater than the amount of the fare increase. Thus, at the end of the process, the carrier's return on investment may be less than it was when the application was filed, and the carrier must immediately file another application. Since it has proven extremely difficult to forecast accurately a year in advance what the rate of inflation will be, the carriers find themselves almost continuously involved in a process of trying to catch up.

One possible solution to this dilemma would be to institute a procedure which would permit carriers able to demonstrate that they have met all applicable operating standards, to implement on a quarterly basis, fare increases which reflect an agreed upon cost-of-operating index. The full fledged annual hearing process could then be utilized to confirm that carrier revenues remain in line with costs.

One further difficulty with the fare increase hearing process as presently structured by the D.P.U. is that it presumes that the carrier has available the full array of accounting and legal resources which are required for the presentation of a formal rate case. For the larger regional carriers such as Bonanza, Peter Pan, and Plymouth & Brockton, the requirement to prepare and file a formal application does not present a major obstacle.

But in the case of a small carrier such as A.B.C., Bloom, Cape Cod or Kinson, the D.P.U.'s current requirements present a formidable bureaucratic hurdle. These small carriers are almost always a family owned business, with the principals directly involved in the day to day operation of scheduled and charter services. In such cases, management's efforts are almost entirely devoted to assuring that buses remain in good operating condition, that scheduled trips are performed on time and that the payroll is met. The D.P.U.'s regulatory procedures, patterned essentially after that established for the metered utilities, is for these small carriers a fairly abstract process. These small carriers almost invariably fail to apply for fare increases often enough to offset the increases in their operating costs. This is due both to the comparative complexity of the fare increase process and to the fact that the level of management sophistication available to the small carrier does not permit them accurately to estimate their fully allocated operating costs. In the case of these smaller carriers, one solution would be permit bus lines which meet all applicable operating standards to charge fares not less than a minimum standard, established following an annual review of the operating costs of typical carriers.

One final issue which forms a part of the regulatory environment in which the intercity bus lines now operate is the apparent position of the D.P.U. regarding the appropriate level of executive compensation to be paid by the intercity bus lines. In the 1977 Peter Pan Bus Lines case cited above (D.P.U. 18706), the Department of Public Utilities took the position that "Salary payments, fringe benefits, commissions, leases and other financial relationships may serve as vehicles for reducing the apparent earnings of the Company while passing off real earnings to investors.... A review of the evidence leads us to conclude that an adequate return is already provided for by way of salaries and benefits to the investors."[1/]

1/ D.P.U. No. 18706, page 10.

In justifying a fare level which would yield an operating ratio of 99.5 percent, with little or no return on investment provided, the Department cited the level of compensation paid to the Chairman and President of Peter Pan Bus Lines as set forth in Exhibit 4. It was the Department's view that these salary levels were such that they should be construed as making up some or all of the return on investment to be earned by the investors, who are also the officers of Peter Pan Bus Lines.

As Exhibit 54 shows, the aggregate compensation earned by the Chairman and the President of Peter Pan Bus Lines in 1975 totalled approximately $156,000. Exhibit 55 presents a summary of the results of a survey of average executive compensation levels which was conducted by Inc. magazine in 1979. In 1979, Peter Pan Bus Lines had a staff of about 115 people, and sales of about $5,000,000. This places Peter Pan in the survey at about the midpoint of a company with under 150 employees and $1 to $10 million is sales. For such companies in 1979, the average total executive compensation paid to the chairman and president ranged from $165,000 to $203,000. With an allowance for inflation at about 8 percent per year, Peter Pan's executive compensation of $156,000 in 1975 would have been equivalent to about $200,000 in 1979 when the data in the Inc. survey was developed. This means that the executive compensation levels paid by Peter Pan Bus Lines, while not average for intra-state bus lines in Massachusetts, are about average for investor-owned corporations in other lines of endeavor.

Again, the key issue is the fact that it is necessary to compensate the investors in a privately owned intercity bus line at a rate of return at least equivalent to the rate of return which could be earned on an alternative type of business. If investors in bus lines can expect to earn an 8 percent return on investment, while investors in fast food franchises can expect to earn an 18 percent return on investment, then we would expect to find that the fast food businesses were growing

COMPENSATION OF PETER PAN BUS LINES' CHAIRMAN AND PRESIDENT 1975

Source	Jennie Picknelly Chairman	Peter Picknelly,Jr. President	Total
Peter Pan Bus Lines			
Salary	$26,250	$71,225	
Profit Sharing	5,250	14,245	
	$31,500	$85,470	$116,970
Peter Pan World Travel			
Salary	-	$33,800	
Profit Sharing	-	5,070	
		$38,870	38,870
TOTAL	$31,500	$124,340	$155,840

Source: Department of Public Utilities, "Investigation by the Department on its own motion as to the propriety of the rates and charges set forth in M.D.P.U. No. 39 filed with the Department on April 27, 1976 to become effective June 1, 1976 by Peter Pan Bus Lines, Inc.", D.P.U. Docket No. 18706, Boston, March 30, 1977.

EXECUTIVE COMPENSATION
BY COMPANY SIZE

By Company Sales

Sales In Millions Of Dollars	Remuneration In Thousands of Dollars		
	Chairman	President	Total
$1 to $10	$128	$75	$203
$10 to $20	84	84	168
$20 to $30	74	85	159

By Number of Employees

Employees	Remuneration In Thousands of Dollars		
	Chairman	President	Total
Under 150	$90	$75	$165
150 - 300	87	78	165
301 - 500	74	94	168
Over 500	62	70	132

Source: Bradford W. Ketchum, Jr., "Executive Pay: What's the Take at the Top?", Inc. Magazine, Boston, June 1979, pp. 45-51, based on a survey of 70 companies. All figures are medians.

at a much faster rate than bus lines. If, through the regulatory process, the state wishes to encourage the expansion of intercity bus services, then it is necessary to increase the revenue levels which the carriers are permitted to earn. Alternatively, the state might wish to evaluate the option of using its borrowing power to make funds available to the carriers at guaranteed interest rates for use in the purchase of new buses. This approach could reduce somewhat the carriers' average cost of capital, and so reduce somewhat the fare levels required to yeild an adequate return of investment on the equity portion of each carriers capital structure.

In early 1980, there was evidence that the D.P.U. was giving added recognition to the requirement that carriers be permitted to earn an adequate return on investment so as to be able to finance the purchase of much needed but ever more expensive new buses. In a decision on an application filed February 6, 1979 (D.P.U. No. 19893) Peter Pan Bus Lines was permitted to increase intrastate bus fares by approximately 23 percent. This increase, will permit Peter Pan, at least on an interim basis, to increase revenues at the same rate at which expenses have been increasing due to inflation. What is now needed, however, is a mechanism which will provide similar compensation on an expedited basis to the other 26 carriers which operate intrastate routes in Massachusetts.

VIII RECOMMENDED OPERATING STANDARDS FOR INTERCITY BUS LINES

One goal of this study is to assist intercity bus lines serving Massachusetts to attract additional ridership. If successful, this would reduce somewhat the number of passenger trips made by car, and would contribute to the overall goal of improving the energy efficiency of our transportation system.

Since most intercity bus lines serving Massachusetts are the exclusive carrier operating on a given route, new passengers which these carriers may be able to attract will come, not from competing bus lines, but from among individuals who now travel by automobile. If intercity bus lines are to be successful in attracting to bus service people who now travel by automobile, then the level of service which the carriers offer should meet a high standard.

Compared to intercity bus service, travel by automobile offers two primary advantages. These are:

- Level of comfort
- Level of convenience

Most private automobiles offer a level of comfort which is superior to that of an intercity bus, as measured in terms of the amount of seating space provided for each passenger. The private automobile also offers a level of convenience which is superior to that of an intercity bus, as measured in terms of the ability of the automobile user to depart on demand, without having to conform to scheduled departure times.

However, scheduled intercity bus service offers the traveller a distinct cost advantage, when compared to the cost of travelling by private car. As a general rule, for the person traveling alone, travel by bus is almost always cheaper than travel by private car. When two are travelling together, travel by bus costs about the same as the cost of travelling by private car. Only when passengers ride in a car pool consisting of three or more people, is the per person cost less than the cost of travelling by intercity bus.

The target audience from which new intercity bus ridership can be developed consists of motorists presently driving alone. Only a relatively small proportion of this group would have to be attracted to bus travel before the current capacity of intercity bus lines to handle additional ridership would be exceeded.

In order to convince a motorist to give up the convenience of car travel, so as to take advantage of the cost savings available to bus passengers, it is first necessary to convince the motorist that, in becoming a bus passenger, it will not be necessary to sacrifice the standard of comfort associated with car travel. To achieve this requires that all of the buses which the carriers utilizes be viewed by the passenger as "good buses", with some proportion of the fleet made up of new buses. While not all passengers or bus operators will have the same definition of "good buses" or "good service", the essential element appears to be the achievement of a standard of service which is consistently above a minimum acceptable level.

This chapter attempts to define a level of service which would be held out as a standard for all intercity bus lines

operating in Massachusetts. Bus lines meeting this standard would be allowed to charge standard fares sufficient to give the carrier a rate of return on investment not less than an agreed upon cost of capital applicable to intercity bus lines.

Exhibit 56 on the next page presents a set of service standards which are recommended for intercity bus lines serving Massachusetts. Suggested standards are provided for:

- Bus size,
- Climate control,
- Seating type,
- Seat pitch,
- Lavatory,
- Loading,
- Standees, and
- Average Age of Fleet

While it is not always easy to obtain a consensus in favor of one precise definition, intercity bus service generally differs from regional transit service in that intercity buses have high backed seats, are air conditioned and furnish each passenger with a seat. Exhibit 57 shows a standard 47 passenger seating plan for lavatory equipped intercity coaches. If 49 seats are installed, the seat pitch on the drivers side is reduced to 30 inches which is below the minimum recommended seat pitch standard of 32 inches.

By conforming to a set of recommended service standards, the intercity bus lines serving Massachusetts would guarantee to each passenger purchasing a ticket that transportation would be provided at an acceptable, and predictable, level of comfort. Since many of the target group of motorists driving alone are adult males, we regard the seat pitch standard as worthy of special attention.

MASSACHUSETTS INTERCITY BUS STUDY

RECOMMENDED SERVICE STANDARDS

BUS SIZE: Since the major components of the cost of operating a bus are the driver in the front and the motor in the rear, greatest efficiency is achieved by utilizing the largest bus permissible, thus increasing the number of passengers who contribute to the cost of each trip. Currently, the largest bus permitted to operate over Interstate highways is 40 feet long and 8 feet wide.

CLIMATE CONTROL: Buses utilized for intercity bus service should be equipped with a climate control system providing heating in the winter and air conditioning in the summer, sufficient to assure passenger comfort at all times.

SEATING TYPE: Buses utilized for intercity trips of 30 minutes or more should be equipped with high-backed seats which provide support for both the head and shoulders of the passenger. On buses which are utilized for trips of 60 minutes or more the seats installed should in addition provide a reclining feature, with a travel of not less than 5 inches as measured at the highest point on the seat.

SEAT PITCH: Buses utilized for intercity bus service should have seats installed so as to provide a seat pitch of not less than 32 inches. This is the minimum seat pitch which will accommodate a majority of adult males in comfort. In standard 40 foot intercity coaches which are lavatory equipped, the maximum number of seats which can be installed with a seat pitch no less than 32 inches is 47 seats.

MASSACHUSETTS INTERCITY BUS STUDY

RECOMMENDED SERVICE STANDARDS

LAVATORY: Buses utilized for intercity trips of 60 minutes or more should be equipped with a lavatory consisting of a toilet and a wet or dry sink.

LOADING STANDARD: Under normal circumstances, every passenger who is in possession of a ticket and who arrives at the designated loading point prior to the scheduled departure time will be provided with a seat. Intercity bus lines will keep full and accurate records of the number of passengers handled on each scheduled departure and will position a backup bus or buses for use on each scheduled departure on which it is anticipated that the number of passengers will exceed the seating capacity of the first bus.

STANDEE STANDARD: Under normal circumstances, standees will not be carried on intercity bus services. Under unusual circumstances, such as an unanticipated one-time demand for service or a cancellation for mechanical reasons, the number of standees will be limited to one standee for each row of installed seats: in a standard 47 passenger intercity coach with 11 rows of seats, not more than 11 standees would be permitted.

MASSACHUSETTS INTERCITY BUS STUDY

RECOMMENDED SERVICE STANDARD

AVERAGE AGE OF FLEET: The fleet of carriers which are engaged in the operation of intercity bus services should have an overall average age in the range of from 6.0 to 7.5 bus years. A continuous bus replacement policy should be in effect so that while some buses in the fleet are 15 years old, some buses will be new each year. Generally, these newer buses will be assigned to operate the first sections of longer distance scheduled trips; older buses will be utilized for second sections and for some shorter distance scheduled trips. Carriers having well devleoped charter and tour programs may prefer to maintain their average age of fleet at less than 6.0 bus years so as to assure that all buses in their fleet are attractive from a marketing viewpoint.

STANDARD INTERCITY COACH SEATING ARRANGEMENT
AT 33 INCH SEAT PITCH WITH LAVATORY

Number of Passenger Seats = 47

Another standard which is of equal importance but which will be much harder for some carriers to meet, is the average age of fleet standard. As shown in Exhibit 58, the intrastate carriers serving Massachusetts can be divided into two major groups: those having a high average age of fleet and those having a low average age of fleet. The nine carriers listed in the second half of the exhibit meet the average age of fleet standard, but the thirteen carriers listed in the first half of the exhibit do not. Taken together the 22 intrastate carriers have a fleet of 367 buses. For these carriers to meet the average age of fleet standard of 7.5 years or less in 1980, it would be necessary for them to accept delivery of not less than 44 new buses. This would be equivalent to replacement of 12 percent of the intrastate bus fleet and would require an investment of about 5.5 million dollars. In fact, the intrastate carriers will replace less than 5 percent of their fleet in 1980.

...

For the intrastate carriers, the issue of bus replacement is a sort of chicken and egg problem. To be successful in attracting additional passengers, the carrier must first assemble a modern fleet. But to upgrade their fleet, the carriers need additional revenues. The only really practical way to end this deadlock is to implement a policy which will enable qualifying carriers to increase their passenger fares at a rate which is at least equal to the rate of inflation in the cost of bus operation. The next chapter presents a recommended policy for setting intercity bus fares.

INTRASTATE CARRIERS WITH HIGH AVERAGE AGE OF FLEET VERSUS INTRASTATE CARRIERS WITH LOW AVERAGE AGE OF FLEET

	Number Of Buses In Fleet	Average Age Of Fleet
High Average Age		
A.B.C.	17	16.2
Bloom	2	18.0
Big W	3	18.3
Bloom	10	10.5
Boscom	9	16.8
Cape Cod	6	15.7
Hub	11	12.4
Hudson	6	10.4
Pierce	4	13.5
Ritchie	9	10.4
Suburban	16	11.4
Travel Time	7	18.6
Trombley	46	12.8
Sub-Total	146 buses	13.5 years
Low Average Age		
Bay State	2	7.0
Brander	16	8.3
Englander	8	4.2
Gray Line	24	5.5
Interstate	13	8.5
Kinson	10	6.7
Medeiros	5	5.2
Peter Pan	49	3.6
Plymouth & Brockton	94	7.0
Sub-Total	221 buses	6.0 years
TOTAL	367 buses	9.0 years

IX RECOMMENDED FARE POLICY FOR INTERCITY BUS LINES

In Chapter VII it was shown that while interstate bus fares granted by the I.C.C. in 1979 averaged 11¢ per mile, intrastate fares granted by the Massachusetts D.P.U. averaged 6¢ per mile. However, there is nothing intrinsic in the act of simply crossing a state line, which would account for the 2 to 1 difference between the fare levels granted by the I.C.C. and the D.P.U. It cannot be shown that interstate carriers, utilizing the same types of buses, and operating over the same highways, have higher operating costs per mile. Nor can it be shown that intrastate carriers achieve higher average load factors than do intercarriers over routes of similar length.

The inescapable conclusion is that the intrastate fare levels which have been awarded by the D.P.U. are unrealistically low. Present D.P.U. intrastate fare levels, while permitting carriers to earn their direct out-of-pocket operating costs, are not sufficient to cover the fully allocated cost of intercity bus operations including capital costs. As a result, in recent years, the intrastate intercity bus industry in Massachusetts has exhibited the following characteristics:

- the average age of fleet of most intrastate carriers has risen well above the accepted maximum age, making it difficult for these carriers to attract new passengers;

- there have been a half a dozen or more business failures among intercity carriers, the most recent being Almeida (1978), Wellesley Fells (1979), and Ritchie (1980);

- interstate carriers have been moving rapidly to avoid service in intrastate markets whenever possible.

Englander Coach, for example, under common ownership with Bonanza Bus Lines, has deleted all references to its Littleton-Boston and Acton - Boston services from its timetable. (See Exhibit 59). These commuter-oriented services are now operated for Englander by Dee Commuter Bus Service of Concord, Massachusetts utlizing much older and less attractive equipment than was formerly supplied by Englander.

Englander itself is maintained by Bonanza as a separate intrastate carrier, based at an unmanned garage in Greenfield, Massachusetts, solely as a means of keeping Englander's intrastate services separate from Bonanza. Englander's timetables are operated with Bonanza buses through routed to and from Providence via Boston. For Bonanza it is necessary to maintain the fiction of Englander as a separate carrier so as to keep Englander's financial results separate from Bonanza's generally profitable balance sheet. Otherwise it would be more difficult for Englander to justify the fare increases which it needs to keep its intrastate routes viable.

Similarly, Bonanza abandoned service in the Taunton - Boston market, effecting a transfer of this route to the less well financed H & L Bloom Bus Company of Taunton. (The average age of the Bloom fleet is 10 years while Bonanza's average age of fleet is 3 years.) The Bonanza route between Fall River and Boston is similarly in jeopardy becasue of the very low intrastate fares mandated by the D.P.U.

Earlier examples of the transfer of routes from interstate carriers to smaller less well financed intrastate carriers

COMPARISON OF ENGLANDER COACH LINES TIMETABLES

FOR APRIL 1979 AND SEPTEMBER 1979

SHOWING DELETION OF LITTLETON ACTON COMMUTER SERVICE

ENGLANDER COACH LINES, Inc.

BOSTON–AYER–FITCHBURG–GREENFIELD–NORTH ADAMS–WILLIAMSTOWN (Continued Below) READ DOWN

2020 4-1-79

		Monday thru Thursday except Holidays													Friday except Holidays													
						PW															PW							
*Providence, R.I. (Gate 7)	BZ Lv	7 30	8 30	10 30	10 30	10 30	12 30	2 30	3 30	4 20	4 30	4 30	7 30		7 30	8 30	10 30	10 30	12 30	1 30	2 30	3 30	4 20	4 30	4 30	7 30	8 30
*Boston, Mass. (Gate 9)	BZ Ar	8 25	9 25	11 25	11 25	11 25	1 25	3 25	4 25	5 25	5 25	5 25	8 25		8 25	9 25	11 25	11 25	1 25	2 25	3 25	4 25	5 25	5 25	5 25	8 25	9 25
*Boston, Mass. (Gate 8) R	ENG Lv	8 30	10 00	12 00	12 15	2 00	3 30	4 30	5 45	5 45	5 45	8 30	1000		8 30	10 00	12 00	12 15	2 00	3 00	3 30	4 30	5 45	5 45	5 45	8 30	1000
tWest Concord	R				12 50					6 20			1035					12 50						6 20		1035
tActon		D	D	12 35		2 35	4 05	5 05	6 20			9 05			D	D	12 35		2 35		4 05	5 05	6 20			9 05	
tLittleton								5 20	6 35			D										5 20	6 35			D	
Fort Devens																											
*Ayer		9 25	10 55	12 55		2 55	4 25	5 35		6 35		9 25	1055		9 25	10 55	12 55		2 55		4 25	5 35		6 35		9 25	1055
tShirley		9 32	11 02	1 02		3 02	4 32	5 42		6 42		9 32	1102		9 32	11 02	1 02		3 02		4 32	5 42		6 42		9 32	1102
tFitchburg Jct.		9 45	11 15	1 15		3 15	4 45	5 55		6 55		9 45	1115		9 45	11 15	1 15		3 15	4 05	4 45	5 55		6 55		9 45	1115
*Fitchburg	Ar	9 50	11 20	1 20		3 20	4 50	6 00		7 05		9 50			9 50	11 20	1 20		3 20	4 10	4 50	6 00		7 05		9 50	
*Athol-Orange					2 00						7 30		1155					2 00						7 30			1155
Millers Falls					2 20						7 50		1215					2 20						7 50			1215
Turner Falls					2 25						7 55		t220					2 25						7 55			t220
*Greenfield	Ar				2 30						8 00		1225					2 30						800→	8 00		1225
Shelburne Falls					2 45						8 15		1240					2 45							8 15		1240
Charlemont					2 55						8 25		t250					2 55							8 25		t250
*North Adams					3 25						8 55		1 20					3 25							8 55		1 20
*Williamstown, Mass.	ENG Ar				3 35						9 05		1 30					3 35							9 05		1 30
Williamstown, Mass.	VT Lv										10 10														1010		
Bennington, Vt.	VT Ar										10 30														1030		

April 1979
Acton & Littleton
Included

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ENGLANDER COACH LINES, Inc.

BOSTON AYER FITCHBURG GREENFIELD NORTH ADAMS WILLIAMSTOWN READ DOWN

2020 9-30-79

		Mondays thru Fridays except Holidays																Fri only
*Providence, R.I. (Gate 7)	BZ Lv	7 30	8 30	8 30	10 30	11 30	12 30	2 30	2 30	3 30	4 30	4 30	7 30	8 30	8 30
*Boston, Mass. (Gate 9)	BZ Ar	8 25	9 25	9 25	11 25	12 25	1 25	3 25	3 25	4 25	5 25	5 25	8 25	9 25	9 25
*BOSTON, MASS. (Gate 8) R	ENG Lv	8 30	10 00	10 15	12 00	1 15	2 00	3 45	4 15	4 30	5 45	6 15	8 30	e1015	
tWest Concord	R			t10 50		1 50			4 50			6 50		e1050	
*Ayer		9 20	10 50		12 50		2 50	4 35		5 30	6 35		9 20		
tShirley		9 27	10 57		12 57		2 57	4 42		5 37	6 42		9 27		
tFitchburg Jct.		9 40	tt t0	11 20	1 10	2 20	3 10	4 55	5 20	5 50	6 55	7 20	9 40	e1120	
*Fitchburg	Ar	9 45	11 15		1 15		3 15	5 00		5 55	7 05		9 45		
*Gardner				11 40		2 40			5 40			7 40		e1140	
*Athol-Orange				12 00		3 00			6 00			8 00		e1200	
Millers Falls				12 20		3 20			6 20			8 20		e1220	
Turner Falls				12 25		3 25			6 25			8 25		e1225	
*Greenfield	Ar			12 30		3 30			6 30			8 30		e1230	
Shelburne Falls				12 45		3 45			6 45			8 45		e1245	
Charlemont				12 55		3 55			6 55			8 55		e1255	
*North Adams				1 25		4 25			7 25			9 25		e1 25	
*WILLIAMSTOWN, MASS.	ENG Ar			1 35		4 35			7 35			9 35		e1 35	
Williamstown, Mass.	VT Lv			2 25								10 10			
Bennington, Vt.	VT Ar			2 45								10 30			

Holidays—New Year's, Memorial, Independence, Labor, Columbus, Thanksgiving and Christmas Day.

BZ—Bonanza Bus Lines.

ENG—Englander Coach Lines.

VT—Vermont Transit Lines.

PW—Thru bus from Providence, R.I.–Boston, Mass. Williamstown, Mass.

D—Stops only to discharge passengers upon request to the driver.

R—No passengers carried between Boston and West Concord.

*—Agency station to which baggage may be checked and to which prepaid, collect and C.O.D. express may be shipped.

t—Agency station handling tickets only.

Fri or e—Friday only.

●—Will also operate Wed., Nov. 21, 1979.

September 1979
Acton & Littleton
Omitted

Exhibit 59

include Newburyport - Boston from Michaud to Kinson, New Bedford - Boston from Almeida to Medeiros, and Middleboro - Boston from Almeida to Bay State.

On balance, the D.P.U.'s policy of mandating unusually low intrastate bus fares, instead of encouraging the development of high frequency high quality commuter bus service, capable of attracting motorists from their cars, has tended to do just the opposite. If further downgrading of service and additional carrier bankruptcies are to be avoided, intrastate bus fares must be allowed to rise to a level which will permit the carriers to recoup not only their operating costs but also their capital costs.

This chapter outlines a standard fare policy covering intrastate bus routes in Massachusetts. This policy, or a similar policy, if adopted, would encourage intercity bus lines to make additonal investment in, and place additional emphasis on,the development of intercity bus service in Massachusetts.

In Tramco's opinion, a great deal of worthwhile simplification could be achieved if the D.P.U. would adopt a standard fare policy covering all intercity bus routes in Massachusetts. The MBTA, for example, in the operation of the 10 commuter rail routes north and south of Boston, charges a standard fare for trips between Boston and points of equal distances from Boston. These standard fares are constructed as follows:

- One way fare is made up of a fixed boarding charge of 75¢ plus a mileage charge of 4¢ per mile.

- Twelve ride ticket books are sold for the price of 10 rides.

MBTA commuter rail stations are further grouped into zones of approximately 6 miles, so that one way fares increase by increments of 25¢ as each zone is passed.[1/] (The MBTA has announced plans to increase commuter rail fares by 20 percent before the end of 1980.)

Instead of requiring each of the 28 intercity bus lines serving Massachusetts to file separately and prosecute individually their applications for a fare increase, a great deal of worthwhile simplification could be achieved by consolidating all such applications into a simple annual ratemaking procedure. This approach would be especially helpful to the 18 intrastate carriers having fewer than 20 buses each, for whom the current rate case process presents an almost insurmountable hurdle. Taken together the combined intrastate revenues of all 22 carriers are probably in the vicinity of 30 or 40 million dollars.[2/] This means that the entire intercity bus industry within Massachusetts has revenues equivalent to those of only one moderately sized gas or electric utility.

The principal reason given by the D.P.U. for the average 10 month delay in the processing of carrier fare increase applications is that a shortage of available staff requires priority to be given to the metered utilities where much larger dollar amounts are involved. The consolidation of all existing carrier applications for fare increases into a single annual ratemaking proceding should reduce dramatically the amount of D.P.U. staff time required

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1/ Boston and Maine Corporation,"Local Passenger Tariff of Fares Between Stations on Lines Where Service Is Operated For the Account of the Massachusetts Bay Transportation Authority." M.D.P.U. No. 39, Issued June 1, 1979, Effective July 1, 1979.

2/ Estimated as 367 buses times $100,000 revenue per bus per year.

in dealing with the intercity bus lines. The E.O.T.C. might be able to assist in this process by maintaining an up-to-date file of the financial results of all 28 carriers on an ongoing basis.

To establish an equitable basis for intercity bus fares, one which will return to carriers their fully allocated operating costs while maintaining passenger fares as low as practical, it is necessary to establish agreement on three basic parameters:

- the fully allocated cost of operating an intercity bus per mile;
- the average seat mile load factor which can be reliably maintained in scheduled intercity bus service; and
- the relationship between the cost of one way, round trip and multiple ride tickets.

In 1979, the fully allocated cost per mile of operating intercity bus service in Massachusetts was about $1.20 per bus mile. With inflation now at an 18 percent annual rate, this cost will rise to $1.40 per bus mile before the end of 1980. Exhibit 60 provides comparative data on the cost per mile of intercity bus operations.

Some Massachusetts - based carriers report operating costs which are lower than the industry average. In Tramco's judgment these data are not accurate: carriers which appear to have lower costs, are instead carriers which do not really know what their costs are.

Intercity bus lines serving Massachusetts have substantially identical operating costs:

- all carriers utilize similar buses made by one of four manufacturers and sold at similar prices;

REPRESENTATIVE DATA ON AVERAGE CARRIER OPERATING COST PER BUS MILE

Year	Carrier(s)	Operating Expenses [c] -000-	Bus Miles Operated -000-	Average Cost Per Bus Mile
1978	43 Class 1 Intercity Carriers [a]	$977,536	721,982	$ 1.35
1978	Greyhound Lines of Canada, Ltd. [b]	5,100 [d]	4,210	1.21
1979	Peter Pan Bus Lines [b]	5,794	3,901	1.23
1979	Bonanza Bus Lines [b]	8,813	5,978	1.47

Notes: a) Source: Interstate Commerce Commission, Financial and Operating Statistics of Class 1 Motor Carriers of Passengers, Statement No. 750, Jan. 1 - Dec. 31, 1978.

b) Source: Carrier financial statements.

c) Figure for Operating Expenses includes taxes and interest.

d) Figure shown is U.S. dollars, converted from Canadian dollars at $0.85.

- all carriers operate over similar highway networks;
- all carriers pay similar wage rates to drivers and mechanics; and
- all carriers pay similar prices for fuel, parts and tires.

Those carriers which have a higher average age of fleet, and rely on the use of older buses do in fact have lower capital costs, on a per bus basis. However, this savings is largely offset by the higher per mile cost of maintenance required to keep older buses in good operating condition. Thus, the operation of older buses is cheaper only at relatively low rates of bus utilization. This explains why carriers with a relatively high rate of bus utilization, as measured in bus hours per day, find it cheaper to maintain a relatively low average age of fleet. The added advantage of newer buses, in terms of revenue earning potential, is that newer buses can be utilized for charter and tours, while older buses are generally less acceptable for such use.

The major variable which accounts for differences in the cost per mile of intercity bus operation is not the carrier's operating cost structure. Intercity bus operating costs are made up primarily of the cost of labor for drivers and mechanics, and of the cost of fuel. These costs are incurred on a per bus hour basis. Carriers which operate relatively short routes over state highways produce fewer bus miles per bus hour than do carriers which operate relatively long non-stop routes via Interstate highways. For example, compare the following two routes which are operated by Plymouth & Brockton:

- Scituate - Boston, 25 miles via Route 3A; and
- Sagamore - Boston, 50 miles via Route 3.

Each of these routes have a scheduled one way running time of 60 minutes even though one route is twice as long as the other,

The current one way fares are $2.30 to Scituate and $3.40 to Sagamore. Thus, comparing two full buses leaving Boston, the bus operated to Scituate will generate 25 percent less revenue per bus hour than will the bus going to Sagamore. This means that carriers operating shorter routes, which generate relatively few bus miles per bus hour, will need higher average fares per mile than carriers operating longer routes which generate more bus miles per bus hour.

The second major variable which must be quantified in establishing equitable intercity bus fares is the average seat mile load factor which an intercity bus line should be expected to attain in scheduled service. Two major factors have an impact on an average bus load factors. These are:

- directionality of demand; and
- tapering load factor.

The demand for intercity bus travel in Massachusetts is primarily inbound to Boston before noon and outbound from Boston after noon. This directionality of demand means that a bus which operates to Boston 90 percent full may return from Boston only 10 percent full. In this example, the average round trip load factor, for a carrier operating non-stop between two points, would be 50 percent. If, as is more often the case, the carrier makes serveral intermediate stops to pick up passengers enroute, then the principle of a tapering load factor applies. The bus may leave the end of the line with 50 percent of its seats occupied and gradually add passengers along the way until 90 percent of the seats are full. If the average inbound load factor on such a route is 70 percent and the outbound load factor remains at 10 percent, then the average round trip load factor would be 40 percent.

An added complication for intercity bus lines is the requirement that second sections must be operated if the number of passengers arriving for a scheduled departure exceeds the capacity of one bus.

Thus, for example, if a first section is loaded 100 percent full, the second section may depart 50 percent full. On the return trip the outbound load factor on the first section remains 10 percent, but the second section bus usually has to return empty. For the four one-way trips in this example, the average load factor would be 40 percent.

In our experience, taking into consideration the directionality of demand, tapering load factors, and the second section requirement, the highest seat mile load factor which can be consistently maintained by a scheduled intercity bus line is about 40 percent. In a 47 seat intercity bus, a 40 percent load factor is equivalent to the occupancy of an average of 18.8 seats on a round trip basis.

If the cost of intercity bus operation is expected to average $1.40 per mile in 1980, and if the average passenger load is equivalent to 18.8 passengers per trip, then the average revenue yield per passenger mile which the carriers will require to break even in 1980 is 7.4 cents. Exhibit 61 is an estimate of the average yield which the carriers earned in a 50 mile market in 1979. This exhibit compares the revenue yield under two assumptions:

- 80% of passengers use commuter tickets
- 60% of passengers use commuter tickets

Revenue yield is the average fare earned per passenger mile, after taking into account the effect of discount fares. In both cases, commuter tickets were assumed to cost 20% less than the per ride cost of round trip tickets. With a high proportion of commuter ticket users, the average revenue yield per passenger mile was 5.1¢; with an average proportion of commuter ticket users, the average revenue yield per passenger mile was 5.4¢.

ESTIMATED AVERAGE YIELD OF INTRASTATE BUS FARES IN A 50 MILE MARKET WITH A HIGH PROPORTION OF COMMUTER TICKET USERS 1979

Ticket Category	Estimated Percent Distribution By Category	Average Fare Per Ride	Revenue Yield
One Way	10	$ 3.05	$ 30.50
Round Trip	10	3.05	30.50
Commuter Book[1/]	80	2.45	196.00
Total Revenue Per 100 Passengers			$257.00
Passenger Miles Per 100 Passengers			5,000
Average Revenue Yield Per Passenger Mile			5.1¢

1/Figures shown assume that 80% of passengers use commuter books, and that commuter tickets cost 20% less than do tickets purchsed individually.

ESTIMATED AVERAGE YIELD
OF INTRASTATE BUS FARES IN A 50 MILE MARKET
WITH AN AVERAGE PROPORTION OF COMMUTER TICKET USERS
1979

Ticket Category	Estimated Percent Distribution By Category	Average Fare Per Ride	Revenue Yield
One Way	20	$ 3.05	$ 61.00
Round Trip	20	3.05	61.00
Commuter Book[1/]	60	2.45	147.00
Total Revenue Per 100 Passengers			$269.00
Passenger Miles Per 100 Passengers			5,000
Average Revenue Yield Per Passenger Mile			5.4¢

1/Figures shown assume that 60% of passengers use commuter books, and that commuter books cost 20% less than do tickets purchased individually.

What is required, if the carriers are to be able to operate in 1980 at a level of profit sufficient to reimburse them for the cost of capital, is a fare structure which will yield an average of 7.4¢ per passenger mile. Tramco recommends that a new fare structure, providing standard intercity fares statewide, should be made up utilizing the following components:

- A one-way fare which is higher than average on a per mile basis, to reflect the greater value of one way travel and to encourage the purchase of round trip tickets,

- a round trip fare which is made up of a fixed boarding fee per trip plus a variable cost based on distance travelled,

- commuter tickets which are priced on the basis of 12 rides for the cost of 5 round trip tickets, or the equivalent percentage discount of 16.7% for a 10 ride book.

This would place both round trip and commuter fares on a basis which is equivalent to the basis which is utilized to construct MBTA commuter rail fares.

In the case of round trip fares, the boarding fee reflects the fact that a proportion of intercity bus costs are incurred on a per passenger basis, rather than on a per mile basis. The boarding fee also provides the necessary amount of taper, making the per mile fare for short trips higher than the per mile fare for longer trips. For example, a boarding charge of $1.00 per trip adds 4¢ per mile to the cost of a 25 mile trip, but only 1¢ per mile to the cost of a 100 mile trip. For the construction of round-trip intrastate bus fares, after testing many variables, we recommend as a standard that round trip fares be computed on the basis of a boarding charge of $1.00 per ride plus 6¢ for each mile travelled.

One-way tickets are currently priced at half of the cost of round trip tickets. We recommend that the passenger who only purchases a one-way ticket should not benefit from a full discount. This is true for two reasons:

- for the passenger who travels one way only, the bus ride is worth more, when compared to other options such as taking a taxi or renting a car.

- for the carrier, it is usually necessary to move a bus round trip in order to transport a passenger one way.

The peaking of demand on weekends provides an example of this. On Friday afternoons, carriers generally have to bring buses into Boston empty so as to make enough seats available to handle the demand for outbound travel for the weekend. Similarly, on Sunday evenings, extra sections are required to handle the inbound demand to Boston, but these second section buses generally return empty. A significant proportion of the extra demand which generates the need for second sections is made up of passengers travelling on one way tickets.

After testing a number of variables, we recommed that one-way fares be established at a level which is a constant $2.00 less than the round trip fare in a given market. Since round trip fares were based on a boarding fee of $1.00 per ride plus 6¢ per mile, this would place one way fares on a standard basis of 12¢ per mile. Bearing in mind that in 1979 interstate fares averaged 11¢ per mile, the approach recommended would simply place one way intrastate fares on the same basis as one way interstate fares.

When pricing multiple ride tickets, it is necessary to establish a balance between the desire to attract repeat business on the one hand, and the additional cost of handling increases in passenger volume on the other. Multiple ride tickets are for the most part utilized by commuters travelling to and from Boston during peak hours. These peak hour riders impose extra costs on the carrier by requiring that extra buses be maintained which, for the most part, can be utilized for only 2 to 3 hours, twice a day, five days per week. For this reason it would seem essential that deep discounts be avoided.

Multiple ride intrastate bus tickets are not now priced on any consistent basis. Discounts of 33, 20, 16.7 and 10 percent are offered depending upon the destination. Commuter books of both 10 rides and 20 rides are sold. The validity of these tickets is generally limited to 30 days from the date of sale.

MBTA commuter rail tickets are sold in books of 12, which are priced at 10 times the cost of a one way ticket, making the discount offered equivalent to 16.7 percent. MBTA commuter books are not subject to a 30 day limit, but are valid until used. The only restriction is that the use of the commuter book is limited to the bearer, and the tickets are not good if detached. This limitation prevents a group of passengers travelling together from each detaching a ticket from a single commuter book.

We are persuaded that the MBTA commuter book discount of 16.7 percent represents an optimum. By not limiting the validity of the commuter book to 30 days the purchase of these

tickets becomes attractive to a broader spectrum of passengers.[1/] From the carriers point of view, the absence of a time limit can improve cash flow by providing revenue now for transportation which will be delivered one or two months in the future. In addition, the number and the cost of ticket sales transactions is reduced when passengers purchase their transportation 10 or 12 rides at a time instead of 1 or 2 rides at a time. If it is agreed that a discount of 16.7 percent represents an optimum level for multiple ride tickets, then it is only necessary to insure that fares for one way and round trip tickets be set at levels which are high enough to provide the desired yield for a typical mix of one way, round trip and multiple ride tickets.

The recommended fare levels discussed above can be summarized as follows:

- One way fares constructed on the basis of 12 cents per mile.

- Round trip fares constructed on the basis of $1.00 per ride plus 6¢ per mile.

- Multiple ride tickets sold as 12 rides for the price of 5 round trip tickets; multiple ride tickets to be good until used, but void if detached.

Exhibit 62 presents an estimate of an average yield which the above fare structure would earn in a 50 mile market. As in Exhibit 61, this exhibit compares the yield in a market in which 80 percent of passengers use commuter tickets, with a market in which 60 percent of passengers use commuter tickets. Because

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1/As a practical fact, the present 30 day limit on the validity of intercity bus commuter tickets is almost never enforced, due in large measure to the illegibility of the date on the carbon copy ticket forms utilized.

ESTIMATED AVERAGE YIELD OF PROPOSED INTRASTATE BUS FARES IN A 50 MILE MARKET WITH A HIGH PROPORTION OF COMMUTER TICKET USERS

Ticket Category	Estimated Percent Distribution By Category	Proposed Average Fare Per Ride	Revenue Yield
One Way	5	$ 6.00	$ 30.00
Round Trip[1/]	15	4.00	60.00
Commuter Book[2/]	80	3.33	266.40
Total Revenue Per 100 Passengers			$356.40
Passenger Miles Per 100 Passengers			5,000
Average Revenue Yield Per Passenger Mile			7.1¢

1/Figures shown assume that round trip fares are constructed on the basis of $1.00 per ride plus 6¢ per mile travelled, and one way fares are $2.00 less than round trip fares.

2/Figures shown assume that 80% of passengers use commuter books and that commuter tickets cost 16.7% less than the cost per ride of a round trip ticket.

ESTIMATED AVERAGE YIELD OF PROPOSED INTRASTATE BUS FARES IN A 50 MILE MARKET WITH AN AVERAGE PROPORTION OF COMMUTER TICKET USERS

Ticket Category	Estimated Percent Distribution By Category	Average Fare Per Ride	Revenue Yield
One Way	10	$ 6.00	$ 60.00
Round Trip[1/]	30	4.00	120.00
Commuter Book[2/]	60	3.33	199.80
Total Revenue Per 100 Passengers			$379.80
Passenger Miles Per 100 Passengers			5,000
Average Revenue Yield Per Passenger Mile			7.6¢

1/Figures shown assume that round trip fares are constructed on the basis of $1.00 per ride plus 6¢ per mile travelled, and one way fares are $2.00 less than round trip fares.

2/Figures shown assume that 60% of passengers use commuter books and commuter tickets cost 16.7% less than the cost per ride of a round trip ticket.

the fare structure proposed for 1980 recommends significantly higher fare levels for one way tickets, a shift in demand from one way tickets to round trip tickets is postulated in each case. As Exhibit 62 shows, under the recommended fare structure, the estimated average yield in a market with a high proportion of commuter tickets users would be 7.1¢ per passenger mile. In a market with an average proportion of commuter ticket users, the estimated average yield would be 7.6¢ per passenger mile. While these fare levels represent a 40 percent increase above the intrastate fare levels in effect in 1979, they are still 40 percent below the interstate fare levels in effect in 1979.

Exhibit 63 compares a variety of fares charged in 50 mile markets. As the exhibit shows, the intercity bus fare levels proposed for 1980 are about the same as the Amtrack fares which are currently in effect.

Exhibit 64 compares a variety of fares charged in 70 mile markets. As the exhibit shows, the intrastate fares proposed for 1980 are higher than 1979 intrastate fares, but lower than 1979 interstate fares. In the interstate example given, the principle of a one way fare which is only slightly less than the round trip fare is illustrated.

Exhibit 65 presents the standard intercity bus fares recommended for intrastate fares in markets of various lengths, from 1 mile to 100 miles. As the exhibit shows, in markets of 20 miles or more, the proposed one way fare is a constant $2.00 less than the round trip fare. In longer distance markets, those of 50 miles or more, this fare structure would provide a strong incentive for the purchase of round trip tickets. To encourage passengers to purchase a minimum of two rides at a time, we recommend that round trip tickets be sold as two ride tickets, with each coupon valid for one ride in either direction between the two points names.

COMPARISON OF FARES CHARGED IN 50 MILE MARKETS

Type of Fare	Fare One Way	Fare Round Trip
1979 Intrastate Bus Fare[1/]	$ 3.05	$ 5.80
1980 Intrastate Bus Fare[2/]	3.40	6.80
1979 Interstate Bus Fare[3/]	4.80	7.95
1980 Amtrak Interstate Fare[3/]	5.65	7.75
Proposed 1980 Intrastate Bus Fare	6.00	8.00

1/Fall River - Boston
2/Sagamore - Boston
3/Providence - Boston

Proposed Fares, One Way and Round Trip
Compared With 1979 Fares
In A 70 Mile Market

Fare Category	One-Way	Round-Trip
Interstate - 1979[1/]	$10.20	$11.35
Intrastate - 1979[2/]	4.10	8.20
Proposed Fare	8.40	10.40

Intrastate fares proposed for 1980 are higher than 1979 intrastate fares, but lower than 1979 interstate fares.

1/ Fares between Providence and Hyannis

2/ Fares between Boston and Hyannis

RECOMMENDED STANDARD INTERCITY BUS FARES FOR INTRASTATE ROUTES IN MASSACHUSETTS

1980

ONE WAY MILES	ONE RIDE FARE	TWO RIDE FARE	12-RIDE FARE[a/]	COST PER RIDE ON 12-RIDE TICKET
1 - 9	$1.00	$2.00	$10.00	$0.83
10 - 11	1.25	2.50	12.50	1.04
12 - 13	1.50	3.00	15.00	1.25
14 - 15	1.75	3.50	17.50	1.46
16 - 17	2.00	4.00	20.00	1.67
18 - 19	2.25	4.25	21.25	1.77
20 - 21	2.50	4.50	22.50	1.88
22 - 23	2.75	4.75	23.75	1.98
24 - 26	3.00	5.00	25.00	2.08
27 - 28	3.25	5.25	26.25	2.19
29 - 30	3.50	5.50	27.50	2.29
31 - 32	3.75	5.75	28.75	2.40
33 - 34	4.00	6.00	30.00	2.50
35 - 36	4.25	6.25	31.25	2.60
37 - 38	4.50	6.50	32.50	2.71
39 - 40	4.75	6.75	33.75	2.81
41 - 42	5.00	7.00	35.00	2.92
43 - 44	5.25	7.25	36.25	3.02
45 - 46	5.50	7.50	37.50	3.12
47 - 48	5.75	7.75	38.75	3.23
49 - 51	6.00	8.00	40.00	3.33
52 - 53	6.25	8.25	41.25	3.44
54 - 55	6.50	8.50	42.50	3.54
56 - 57	6.75	8.75	43.75	3.65
58 - 59	7.00	9.00	45.00	3.75
60 - 61	7.25	9.25	46.25	3.85
62 - 63	7.50	9.50	47.50	3.96
64 - 65	7.75	9.75	48.75	4.06
66 - 67	8.00	10.00	50.00	4.17
68 - 69	8.25	10.25	51.25	4.27
70 - 71	8.50	10.50	52.50	4.38
72 - 73	8.75	10.75	53.75	4.48
74 - 76	9.00	11.00	55.00	4.58
77 - 78	9.25	11.25	56.25	4.69
79 - 80	9.50	11.50	57.50	4.79
81 - 82	9.75	11.75	58.75	4.90
83 - 84	10.00	12.00	60.00	5.00
85 - 86	10.25	12.25	61.25	5.10
87 - 88	10.50	12.50	62.50	5.21
89 - 90	10.75	12.75	63.75	5.31
91 - 92	11.00	13.00	65.00	5.42
93 - 94	11.25	13.25	66.25	5.52
95 - 96	11.50	13.50	67.75	5.62
97 - 98	11.75	13.75	68.75	5.73
99 -100	12.00	14.00	70.00	5.83

a/ 12-ride tickets valid until used but only for bearer and void if detached.

For journeys of less than 20 miles, the principle that the one way fare should be $2.00 less than the two ride fare is altered somewhat. The proposed fare for a 16 mile market would be $2.00 one way and $4.00 for two rides. In a 15 mile market the applicable fares would be $1.75 one way, and $3.50 for two rides. Thus, in markets of 15 miles or less the recommended fares are 12¢ per mile both one way and for two rides. In contrast, for a 100 mile market, the recommended fares are 12¢ per mile one way and 7¢ per mile for two rides.

Exhibit 66 compares the proposed one way intrastate fares with the one way interstate fares in effect in 1979. As the exhibit shows, the proposed one way fare levels are about the same as, and in some cases less than the one way interstate fares in effect in 1979.

Exhibit 67 compares the proposed two ride fares with the round trip intrastate fares in effect in 1979. As the exhibit shows, the recommended two ride fare levels represent an average fare increase of 20 percent. This is approximately the fare increase which was recently awarded by the D.P.U. to Peter Pan Bus Lines. What remains to be accomplished is the award of similar fare increases to the other 27 intercity bus lines serving Massachusetts.

Raising the average yield of intrastate bus fares from 5.2¢ per mile to 7.4¢ per mile would require fare increases which average about 40 percent. Experience has shown that a one time fare increase of 40 percent can generate considerable ill will, along with a certain amount of backlash in the form of lost ridership. When, as has been demonstrated, it is necessary to increase intrastate fares by as much as 40 percent, it is far preferable, in terms of passenger acceptance, to implement a planned sequence of much smaller fare increases. In this example, four fare increases of 10 percent, implemented quarterly would be much less likely to generate passenger resistance than would a single 40 percent fare increase.

Proposed One-Way Intrastate Fares
Compared With
1979 One-Way Interstate Fares

One-Way Mileage	Sample 1979 One-Way Interstate Fare	Proposed One-Way Intrastate Fare	Percent Increase
40	$ 5.85	$ 4.75	
50	4.80	6.00	
60	6.85	7.25	
70	8.25	8.50	
90	8.80	10.75	
110	12.45	13.25	
150	17.55	18.00	
Total Fare for Seven Markets	$64.55	$68.50	
Total Mileage for Seven Markets	570	570	
Average Fare Per Mile	11.3¢	12¢	6%

Proposed Round-Trip Intrastate Fares
Compared With
1979 Round-Trip Intrastate Fares

One-Way Mileage	Sample 1979 Round-Trip Intrastate Fare	Proposed Two Ride Intrastate Fare	Percent Increase
40	$ 4.50	$ 6.75	
50	6.10	8.00	
60	7.20	9.25	
70	8.20	10.50	
90	10.60	12.75	
110	13.00	15.25	
150	18.30	20.00	
Total Fare for Seven Markets	$67.90	$82.50	
Total Mileage for Seven Markets	1140	1140	
Average Fare Per Mile	6.0¢	7.2¢	20%

In the case of multiple ride tickets, a similar approach is recommended. Some carriers now sell multiple ride ticket books at a discount of 33 percent. It is recommended that this discount be reduced to 16.7 percent. Rather than cutting the discount in half overnight, far better passenger acceptance will result if the percentage discount is reduced gradually in stages. For example, discounts now at 33 percent could be reduced in steps to 30, 25, 20, and then 16.7 percent.

The fare standard proposed is still substantially less expensive than the cost of driving alone, which is probably understated for the Boston commuter due to parking costs, and more particularly for long distance commuters due to rapid depreciation. This is true when operating costs alone are considered, and the comparison becomes extreme when capital costs are included (see Exhibit 68 on the following page).

Carpooling is less expensive, but that was true in 1979 with actual D.P.U. fares. It is possible that some people will be diverted from the bus to a carpool, but in terms of overall public policy, a carpool with an occupancy of 2.4 people and fuel efficiency of 14.7 miles per gallon is slightly more efficient than a 45 passenger coach with fuel efficiency of six to eight miles per gallon. It is unlikely that there will be a major diversion from the bus since the question must be asked, given the cost comparisons, "Why haven't these people been carpooling right along?"

In the case of non-commuter service, such as Peter Pan's Springfield-Boston routes, no diversion can be expected. Since the trips are taken on a less regular basis, the cost increase will be less noticeable. In addition, it is unlikely that carpools can be successfully organized for ad hoc, irregular trips.

COST COMPARISON 1/

Round Trip Mileage	Typical 1979 Round Trip Intrastate Fares	Proposed Round Trip Fares 12-Ride Ticket	Automobile Operating Costs	Individual Operating Costs In A Carpool of 2.4 Persons	Operating and Capital Costs
20	$1.68	$2.08	$3.97	$1.65	$6.39
40	3.08	3.76	6.19	2.58	8.61
60	3.92	4.58	8.41	3.50	10.83
80	4.50	5.62	10.63	4.43	13.05
100	6.10	6.66	12.85	5.35	15.27

1/ Auto costs based on FHWA figures for 1979 assuming a compact car:

Gasoline = $1.25 per gallon (6.3¢ per mile)
Daily Parking Costs = $1.50
Oil, Tires, Maintenance, Repairs = 4.8¢ per mile
Capital Costs = $2.42 per day
Tolls = $.25 per day

Finance charges, depreciation, insurance, taxes, licenses, and fees must also be considered.

The main point to remember is that carriers are making little, if any, money right now on commuter service at present fares with high load factors. Kinson needs a 98 percent load factor to break even. Some carriers, like Plymouth & Brockton, literally cannot afford more passengers at current fare levels. P&B, for example, has 100 percent load factors on many routes, but because of the distances traveled (Hyannis-Boston, for example) is not permitted to carry standees and must put on an extra bus to carry any overflow. Putting on an extra bus to carry 20 or so people obviously is not worth it. P&B has little to fear in losing the "n^{th}" passenger through fare increases, as long as his overall revenue increases. Only by making this type of service more profitable will carriers be induced to invest more resources in intrastate service to make it more attractive to the commuting public, and in that way increase ridership. This could perhaps even divert some current auto drivers who will not ride the bus because of poor frequencies, standees, or the use of school buses or average coaches.

On the other hand, on the longer haul service operated by Peter Pan, diversion of riders could hurt because current load factors are around 50 percent. But it is in precisely these routes that diversion is least likely to occur. Carpools are difficult to form, and a large proportion of riders are students and the elderly who tend to have access to a car less often.

The fare increases for round-trip fares average about 20 percent on 1980 fares.

Based on the data presented in this chapter, the D.P.U. should promptly grant an across-the-board fare increase which would yield the carrier revenue increases of about ten percent

in all applicable intrastate markets.[1/] The only exception would be that fares would not increase above the recommended standard fare levels, as would otherwise be the case in some short distance markets. Nor would any existing fares which are higher than the recommended standard be reduced. Instead, these fares would remain the same. Subsequent ten percent fare increases would be scheduled at three month intervals. This would give the D.P.U. and the carriers ample time to jointly develop the data needed to verify the various assumptions on which this chapter has been based.

1/ An exception would be made in the case of Peter Pan Bus Lines which was granted a 23 percent fare increase early in 1980.

X. MARKETING INTERCITY BUS SERVICE

As shown in Exhibit 69, an estimated 30,000 passenger trips per day are made on intercity bus lines in Massachusetts. This makes the number of daily intercity bus passengers equal in importance to the 30,000 passengers handled daily on the MBTA commuter rail network.[1/] To the extent that additional passengers could be induced to leave their cars at home and make use of intercity bus service, worthwhile improvements in energy efficiency could be achieved.

In February, 1980 staff members of the EOTC conducted a one day survey of passengers on Kinson Bus Lines by riding every scheduled outbound trip from Boston. Of approximately 190 passengers carried, 165 or 87 percent returned completed questionnaires. Of passengers replying, 82 percent had found out about the availability of Kinson's service through word-of-mouth, or through local inquiries. Ten percent of passengers learned of Kinson's service by seeing a timetable. Only 3 percent indicated that they had become aware of the service as the result of seeing an advertisement.

These results underscore Tramco's view that in any program designed to attract additional passengers to intercity bus service, a basic distinction should be made between marketing and advertising. Marketing is a group of service parameters which, when successfully combined, are viewed by passengers as "good service," a product which passengers are prepared to use on a recurring basis and to recommend to others. Advertising is the presentation, in print or electronic media, of information aimed at persuading consumers to select a particular product. In markets where there are competing brands available, advertising may play a role in persuading a customer to develop a preference for one brand instead another. In the case of intercity bus service, where

Estimated Average Number Of Passengers Per Day Handled On Intercity Bus Lines Serving Massachusetts

Total New England-Based Fleet Of Carriers Serving Massachusetts	687	
Estimated Percentage Of Fleet Which Is Utilized In Scheduled Service On Weekdays	.60	
Estimated Number Of Buses Which Are Utilized In Scheduled Service On Weekdays		412
Estimated Average Number Of Hours Each Bus Is Utilized On Weekdays	8	
Estimated Average Duration Of A One Way Trip In Hours	2	
Estimated Average Number Of One Way Trips Per Bus Per Day		4
Number of One Way Trips Scheduled Per Day		1648
Average Number Of Seats Per Bus	47	
Estimated Average Load Factor Per Trip	.40	
Estimated Average Number Of Passengers Per Trip		18.8
Estimated Average Daily Number Of Intercity Bus Passengers On Weekdays		30,982
	Say	30,000

direct competition between carriers is rare, we are not persuaded that media advertising can play an important role.

In one recent example, Trailways placed a full page advertisement in the Boston Globe. The advertising copy extolled the virtues of riding in a Trailways bus, indicating that the seats were more confortable and the washroom was cleaner than those offered by competing bus lines. In our view, such advertising is essentially negative. First, it suggests that the competitor, in this case Greyhound, does not offer comfortable seats or clean washrooms. Second, it fails to recognize that the greatest potential source of new intercity bus passengers consists not of passengers from other bus lines, but rather of people now travelling in private cars. If, in a given market, an intercity bus line were able to attract as new passengers, as much as 5 or 10 percent of the people now making the same trip in a private car, the capacity of the carrier to handle new passengers would be exceeded many times over.

Exhibit 70 on the next page compares the characteristics of acceptable bus service and unacceptable bus service. Carriers which offer most of the characteristics listed under "good service" have been able to develop additional ridership. Carriers whose service is best described by the characteristics listed under "bad service" have not participated in this ridership growth. Essentially the marketplace experience is that if the passenger is offered a comfortable seat in a modern bus and frequent schedules, ridership will exhibit steady growth. This is a product which the passenger will return to use again, and which the passenger will recommend to others.

The motorist, by travelling in his own car, is assured of a seat in comparatively comfortable surroundings. Offsetting this advantage is the cost of car operation, including gasoline and maintenance, and the cost of downtown parking. For an

COMPARISON OF THE CHARACTERISTICS OF
ACCEPTABLE BUS SERVICE AND
UNACCEPTABLE BUS SERVICE

Characteristics of "Good Service"	Characteristics of "Bad Service"
Schedule Information Readily Available	Schedule Information Difficult to Obtain
Frequent Departures	Choice of Only A Few Departure Times
Park & Ride Facilities at Origin	No Park & Ride Facilities
Modern Buses	Unattractive Buses
Comfortable Seating	Cramped Seating
No Standees Carried	Risk of Having To Stand
Attractive Downtown Terminal	Rundown Terminal Facilities

individual travelling alone, use of an intercity bus can offer a significant cost savings. In addition, the time spent on the bus can be utilized for recreational or business reading. This is a potentially valuable option not available to the motorist. A significant percentage of travellers in a market can be persuaded to use the bus, provided only that this does not entail too great a reduction in the level of comfort which they now enjoy as motorists.

Thus, in Tramco's opinion, the most essential element of any state endorsed marketing program is to insure that the carriers have earnings which are sufficient to permit them to add capacity in the form of second sections or more frequent schedules, when the number of riders has grown beyond the seating capacity of one bus. One example will suffice to illustrate the Catch 22 nature of the current dilemma which is faced by both the carriers and their passengers:

- Kinson Bus Lines operates four commuter trips between Boston and Newburyport. On the last two of these trips, at 4:40 and 5:15 p.m., ridership has developed to the point that an average of 5 to 10 standees are carried on each trip.

- The Department of Public Utilities views its role, as regulator of intrastate bus lines, in part as requiring it to protect passengers from overcharging by the carriers. The fares granted by the D.P.U. to Kinson are so low that Kinson must handle 47 passengers per trip to break even (see Chapter 2).

- Kinson passengers interviewed by the EOTC indicated in 66 percent of the case that more frequent service, especially a trip later than 5:15 p.m., would induce them use the bus more often. Passengers also indicated, in 87 percent of the cases that the fare they were paying was either

acceptable or less than any other alternative. Only 13 percent of respondents thought the fare was too high.

The obvious solution is for Kinson to add another trip at, say, 5:30 p.m., but at present fares Kinson is not able to do so. The total number of standees now riding, at 10 to 20 per day is far less than the unrealistically high 47 passenger break even point set by current fares. Passengers appear to be willing to pay higher fares for more service, but the D.P.U. in its zeal to protect passengers from overcharges has mandated fares so low as to prevent Kinson from adding more service. Passengers who would prefer to have a seat are thus forced to stand, and Kinson who would prefer to add more service is forced to persist with his present schedule. This situation, which is repeated in various forms on almost all of the intercity bus routes serving Boston during peak hours, is not one which lends itself to an extensive marketing program aimed at attracting additional ridership.

Within the above context, there are a number of steps which, if implemented at the state level, could materially assist the intercity bus lines to develop additional ridership. These include:

- Publication of a combined timetable covering all intercity bus and commuter rail service in Massachusetts.

- Completion of the design and construction phases of the new combined intercity bus terminal proposed for the South Station complex.

- Exemption of intercity buses from the payment of tolls on turnpikes, bridges and tunnels.

- Participation by the state in an annual joint bus purchasing program to provide centralized purchasing of all Massachusetts based carriers' requirements for new buses at favorable interest rates.

- Provision of additional park and ride facilities at points where intercity bus route enter Interstate highways to begin their express run to Boston.

Each of these steps are discussed below in terms of their potential impact on the intercity bus lines serving Massachusetts.

Combined Timetable Guide

Boston is served by 30 radial routes operated by 21 different intercity bus lines. Massachusetts is served by 28 different intercity bus lines. As the process of having small intrastate carriers take over routes formerly operated by larger interstate carriers continues, the number of intercity bus lines operating in Massachusetts has increased. This in turn has increased the amount of difficulty faced by the average consumer who wants to obtain bus schedule information or a copy of a public timetable.

While the potential bus passenger may have comparatively little difficulty in obtaining timetable information by telephone or in person from the carrier serving his local community, the assembly of comprehensive timetable information covering all bus service available in Massachusetts is at present a task far too complex to be undertaken by an individual consumer. As a result, the consumer is generally unaware of the services of connecting carriers which would permit, for example, a trip from Plymouth to Fitchburg, or from Lawrence to New Bedford. Improving the availability of timetable information should be a basic component in any program aimed at increasing intercity bus ridership.

In Europe, where public transportation services are generally thought to be superior to those of the United States, combined timetable guides covering all of the surface transportation schedules operated in each country are universally available. Typically, these timetable guides are published by the state railway in each country. Distribution is generally accomplished through newsstands,with the guide priced at a level which covers at least the cost of printing.

Since many European countries are not much larger than New England the obvious analogy would be the publication of a complete timetable guidebook covering all intercity surface transportation in New England. Appendix II in this report, in 68 pages, presents timetables of all 28 intercity bus lines serving Massachusetts. In addition, a combined timetable guide should contain schedules of the 10 commuter rail routes serving Boston, the 3 Amtrak routes serving Massachusetts and the 8 passenger ferry routes which connect with the services of the intercity bus lines at Boston, Hyannis, Falmouth and New Bedford.

In the case of intercity markets which are served by more than one carrier , such as Newburyport - Boston, Gardner - Boston or Pittsfield - Boston, the guide would include a combined timetable showing the full pattern of service available in the market. The availability of such a combined timetable guide would have obvious advantages not only for passengers, but also for employers and for shippers of package express. At the state level the publication of a combined timetable on a quarterly basis would provide valuable documentation of increases and decreases in the level of service offered in specific markets. In addition, the guide would aid in identifying opportunities for the coordination of the schedules of connecting intercity bus services and of MBTA commuter rail services. After an appropriate start-up period, which we judge would take several years, a timetable guide could become self supporting through over-the-counter sales, the

sale of advertising, and the sale of individual timetables for use by participating carriers.

Central Bus Terminal

At the present time the intercity bus lines serving Boston operate out of four different off-street terminals. In addition, at least four carriers have been unable to obtain berth space in the existing terminals and so load passengers at the curb at locations adjacent to the established terminals. At the terminals themselves both the number of berths available and the passenger handling space are inadequate. As a result crowding and boarding delays are the rule rather than the exception.

A new central bus terminal is now to be constructed at South Station by the MBTA. This location is in many respects ideal, with good connections to the north, west and south by Interstate highways and convenient access for rapid transit riders from the adjacent South Station stop on the Red Line. In addition, the combination under one roof of MBTA Southside commuter rail service, Amtrak service and intercity bus service will make possible, for the first time, convenient connections among connecting services. Such connections at the present time are frustrated by the time and distances separating Boston's four bus terminals and two rail terminals. Combining services at a single location to create convenient connections can be expected to have a major impact on the development of additional ridership. A central bus terminal , in addition to doing away with the second class stigma associated with the present bus terminals, will present new opportunities for the through routing of buses across Boston by means of interlining agreements, as well as permitting passengers to transfer between bus and rail service. In the latter case, the seven carriers serving points north of Boston will have an opportunity to become extensions of Amtrak by exchanging passengers with Amtrak's Boston - New York - Washington service.

As has been recognized, the development of a new central bus terminal adequate to handle all of the intercity bus lines serving Boston is beyond the resources of even the largest of these carriers. As the first step in the development process, the MBTA in August 1979, purchased the South Station property from the Boston Redevelopment Authority. Completion of a final design for the Transportation Center project is scheduled for November 1980, and a tentative project completion date has been set for 1985.

Because the combining of all intercity bus services at a single central bus terminal is such a crucial link in any marketing program aimed at attracting additional ridership, it is essential that the central bus terminal component of the South Station Transportation Center be designed to have sufficient capacity available to handle present and future ridership, both in terms of passenger handling and the number of berths needed. Exhibit 71 on the next page shows by hour the number of intercity bus trips scheduled to depart Boston, on Monday through Friday. These data are based on the fourth quarter 1979 timetables contained in Appendix II. In a 24-hour period, a total of 389 departures are scheduled. During the daytime an average of 20 to 24 departures per hour are scheduled. Exhibit 71 also provides detail on the number of departures scheduled by 15-minute intervals during the peak hours from 4:00 to 6:00 p.m. Here again the peak number of departures scheduled is 24. Two factors contribute to an estimate of the number of berths which will be required:

- For passenger handling purposes, the minimum practical interval between consecutive departures scheduled to depart from the same berth is 15 minutes.

- On peak days, such as Fridays, the day before a holiday, and the beginning of school vacation periods, carriers will operate at least one second section for every two scheduled departures.

SCHEDULED INTERCITY BUS DEPARTURES FROM BOSTON
BY TIME OF DAY
MONDAY THROUGH FRIDAY

Hourly Summary

Time of Day	Number of Scheduled Departures
Midnight - 6:59AM	9
7:00 - 7:59	16
8:00 - 8:59	23
9:00 - 9:59	18
10:00 - 10:59	21
11:00 - 11:59	14
12:00 - 12:59PM	21
1:00 - 1:59	17
2:00 - 2:59	21
3:00 - 3:59	24
4:00 - 4:59	62
5:00 - 5:59	75
6:00 - 6:59	24
7:00 - 7:59	12
8:00 - 8:59	13
9:00 - 9:59	8
10:00 - 10:59	4
11:00 - 11:59	7
	389

Detail for Peak Hours

Time of Day	Number of Scheduled Departures
4:00 - 4:14PM	11
4:15 - 4:29	16
4:30 - 4:44	17
4:45 - 4:59	18
5:00 - 5:14	24
5:15 - 5:29	23
5:30 - 5:44	18
5:45 - 5:59PM	10
	137

Thus, on peak days, between 5:00 and 5:14PM, with 24 departures scheduled, a minimum of 36 berths will be required. With allowance for future growth, any terminal with fewer than 50 berths would, in our opinion, be underdesigned.

The above figure further presumes that specific berths or groups of berths will not be assigned permanently to any one carrier. Instead, the degree of flexibility needed to accommodate anticipated demand in a 50-berth terminal can only be achieved by assigning specific departures to specific berths. Thus, a berth used by Bonanza at noon might also be used by Greyhound at 2:00PM and Michaud at 4:00PM. Otherwise, a peak hour carrier might run out of berth space while, in another part of the terminal, berths assigned to a different carrier stood empty.

To retain the needed degree of flexibility in handling both passengers and carriers at the proposed bus terminal, it would be worthwhile to reconsider the traditional approach in which the builder, in this case the MBTA, is the landlord, and the individual carriers lease space for their ticketing, loading and baggage handling requirements. This arrangement inevitably leads to duplication and inefficiency. An alternative arrangement would be to establish a Terminal Corporation set up to handle all of the ticketing and baggage requirements of all the intercity bus lines. The individual carriers would pay no rent for the use of the Terminal. Instead the operating expenses of the Terminal Corporation would be paid from the standard 15% commission assessed on receipts from tickets and package express. This approach would greatly facilitate access to the terminal by small carriers as well as large carriers. In addition, by

financing the operation of the terminal on commission sales, instead of on the basis of a fixed annual rent, the state would have a financial interest in the development of additional intercity bus revenues: as the value of ticket sales increased the revenue earned by the state from the terminal would also increase.

Exemption From Tolls

At the present time, intercity bus lines which operate express bus services via the Callahan and Sumner Tunnels, the Mystic River Bridge, and the Massachusetts Turnpike pay commercial vehicle tolls based, in part, on the number of axles on the bus. We estimate that about two thirds of the 21 carriers serving Boston make use of these toll facilities on a regular basis.

Recently, when Turnpike and tunnel tolls for cars and trucks were increased, tolls for buses remained the same, and tolls for carpools were reduced. Because the number of cars and trucks utilizing these toll facilities far exceeds the number of buses and carpools, the average yield per vehicle has increased and the income requirements of the Turnpike Authority for maintenance and for bond retirement are being met.

Payment of tolls does not represent a major expense for most of the intercity bus lines serving Massachusetts. However, this expense is one of the expenses which must be met through revenues from fares. To the extent that carrier operating expenses are reduced by 2 or 3 percent by the elimination of tolls, there could be an offsetting reduction of 2 or 3 percent in the amount of a future fare increase which would otherwise be required. With the principle of raising private car tolls by enough to offset any loss from reducing (or failing to increase) intercity bus tolls, already established, there is no valid administrative reason why intercity bus tolls cannot be eliminated altogether.

In addition to shifting the relationship between the cost of car travel and the cost of bus travel slightly in favor of the bus, elimination of tolls on buses would have an important marketing impact by demonstrating in concrete financial terms the commitment of the state to encouraging fuel efficient modes of transportation.

Joint Bus Purchasing

The 22 Massachusetts based intercity bus lines have a combined fleet of 367 buses. In 1979, this fleet had an average age of 9.0 years. To bring this average age down to the acceptable maximum of 7.5 years in 1980, these carriers should purchase not less than 44 new buses this year. This purchase, valued at about 5.5 million dollars far exceeds the financial resources of the intrastate carriers.

This report has stressed that, if the intercity bus lines are to remain financially viable, they must be allowed earnings which are at least equal to their cost of capital. This can be accomplished either by increasing fares, or by reducing the carriers cost of capital, or both.

One way to reduce the carriers cost of capital would be to use the purchasing power of the state to reduce the cost of new buses, by setting up a joint purchasing program. Compared with the purchase of buses by the carriers in twos and threes, the purchase of a fleet of 40 buses by the state could be expected to yield not only a better price per bus, but also better financing arrangements. Buses so purchased could be sold or leased to the participating carriers at a cost which would be less than that which any carrier could obtain on its own. To the extent that this plan reduced each carrier's cost of capital, the amount of the fare increase needed to return to the carriers their cost of capital could be reduced by a like amount.

Park and Ride Facilities

One of the most effective ways to develop additional ridership on intercity bus lines is to provide park and ride facilities which enable the motorist to park his car and then ride an express bus into the city. This approach helps to expand the size of the tributary area which can be served by a bus route. One good location for new park and ride facilities is at the interchange where a bus route enters the Interstate highway system for the express run downtown. Often there is ample public land within the acreage occupied by the interchange to permit construction of a park and ride facility.

In the past there has been a certain amount of confusion as to whether the provision of park and ride facilities should be the responsibility of the intercity bus line which benefits from the ridership, or the motorist who benefits from being able to park and ride the bus. The Massachusetts Department of Public Works has thus far constructed large park and ride facilities at the intersection of Routes 132 and 6 in Barnstable, and at the intersection of Routes 3 and 6 in Bourne. The principle that park and ride facilities benefit primarily highway users and should be built with the highway funds which are generated from fuel taxes should be firmly articulated at the state level.

One location where a new park and ride facility could be built is at the intersection of Routes 95 and 97 in Boxford. It would be a relatively simple matter to survey the carriers to identify other locations on the radial highways leading into Boston where additional park and ride facilities could be constructed. Close coordination with the carriers would be required to insure that by the time the park and ride lot was opened the carrier serving that route had peak hour seats available to accommodate the additional demand from park and ride patrons.

In addition to the marketing methods discussed above, there are various promotional techniques which could be utilized to develop additional ridership, especially if coordinated with the introduction of new services or facilities. In order for any program of ridership development to be effective however, the problem of making available additional peak hour capacity must first be faced squarely and resolved.

One of the premises leading to the sponsorship of this study was that if additional riders could be attracted to intercity bus services, worthwhile energy savings might result. In addition, any reduction in the number of cars driven downtown could have a beneficial impact on peak hour highway congestion. For distances of up to at least 100 miles, there is fairly convincing evidence that the intercity bus is the most fuel efficient form of transportation available.

Accompanying the rapid rise in the retail price of gasoline over the past 12 to 18 months, there has been a steady growth in the demand for intercity bus service. This demand has been concentrated in a zone about 30 to 70 miles from Boston and occurs primarily in peak hours. This suggests that most of the new riders are commuters who formerly drove their cars into Boston.

For the intercity bus lines however, this growth in peak hour demand presents an economic dilemma.

One example will illustrate this point:

- At the Sagamore stop at the intersection of Routes 3 and 6 in Bourne there is a large park and ride facility which is popular with commuters.

- The 7:00 a.m. Plymouth and Brockton departure to Boston arrives at Sagamore half full, having originated in Hyannis.

- The number of passengers waiting to board at Sagamore far exceeds the number of seats remaining in the first bus; Plymouth & Brockton originates a second bus at Sagamore at 7:00 a.m. to accommodate these additional riders.

- With the growth in ridership, the number of passengers waiting at Sagamore at 7:00 a.m. now exceeds the capacity of both buses.

- Passengers who are unable to get a seat on one of the first two buses must wait for the next scheduled bus at 7:15 a.m., but with the growth in ridership this bus arrives from Hyannis with few, if any seats remaining.

- As a result, some 7:00 a.m. passengers must wait for the 7:30 a.m. bus before they can get a seat; this in turn makes them late for work.

To the unitiated, the obvious answer would be to add a third bus scheduled to leave Sagamore at 7:00 a.m. However, for the carrier, Plymouth & Brockton, this would be an uneconomic decision.

As an intrastate carrier, Plymouth & Brockton, is at present only marginally profitable at best. The present P & B peak hour schedule requires 67 buses. Some of these buses are scheduled to operate from early morning to late evening. Others however make a single inbound trip in the morning, remain parked at South Station all day, and make a single outbound trip in the afternoon. Plymouth & Brockton has several dozen such buses which remain parked at South Station from about 9:00 a.m. to 2:00 p.m. each day. On a given day only a very small percentage of these buses can be used for charter work. The majority

remain idle until their outbound departure in the afternoon is scheduled.

If Plymouth & Brockton were to respond to the growth in demand at Sagamore by scheduling an additional bus, this 68th bus would operate for only about 3 hours per day, 1 1/2 hours in the morning and 1 1/2 hours in the afternoon. For the remainder of the day this 68th bus would remain parked at South Station.

The ten ride commuter book between Sagamore and Boston is currently priced at $22.80, or $2.28 per ride. This is equivalent to a fare of 4.6¢ per mile for the 50 mile journey. The maximum possible revenue which P & B can earn, even assuming that every seat could be filled is computed as follows:

$2.28 fare x 47 passengers x 2 rides = $214 per day

Plymouth & Brockton's cost would be:

70 miles x 2 trips x $1.40 per mile = $196 per day

The 70 mile figure includes 20 miles deadhead from Plymouth to Sagamore to position the bus and 50 miles in revenue service from Sagamore to Boston. Plymouth & Brockton's breakeven number of passengers in this example is thus:

$196 per day ÷ $4.56 per passenger = 43 passengers.

Since the number of commuters now unable to get a seat on the 7:00 a.m. departure from Sagamore is only 20 to 30, if Plymouth & Brockton scheduled an additional section at 7:00 a.m. there would be a net decrease in P & B's earnings. The result is a stalemate: if there were more peak hour capacity available at Sagamore more people might ride the bus, but when passengers find they must wait a half hour to get a seat, they make alternate travel plans. The commuter fare awarded to P & B by the D.P.U.

is so low that P & B must fill the bus to break even. Since there is no guarantee that P & B could do this on a consistent basis, they cannot afford, at today's fares, to take the risk of increasing the peak hour capacity offered at Sagamore.

The irony of the situation, in terms of the inequities faced by passengers and carriers alike, is underscored by the fact that the D.P.U. approved fare between Buzzards Bay and Boston is $29.55 for 10 rides. This fare is 30 percent higher than the Sagamore-Boston fare, yet Buzzards Bay and Sagamore are each villages in the same town, Bourne, and both locations are approximately equidistant from Boston. If the commuter fare from Sagamore to Boston were $2.95 instead of $2.28 then Plymouth & Brockton's break even peak hour load would be:

$196 per day ÷ $5.90 = 33 passengers

Since there are now an average of 25 overflow passengers at 7:00 a.m., Plymouth & Brockton would have a reasonable possibility of increasing this load to 33 passengers, and could be expected to schedule an additional bus. Until these basic facts of carrier economics are faced squarely by the D.P.U., the mounting of a major marketing effort by the E.O.T.C. would only serve to generate still greater passenger frustration.

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